Service Manual

ViewSonic VA903b-3

VA903m-3

Model No. VS11372

19” Color TFT LCD Display

(VA903b-1_ VA903m-1_SM Rev. 1a Sep. 2006)

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Revision History

Revision	SM Editing Date	ECR Number	Description of Changes	Editor
1a	09/08/2006		Initial Release	Jamie Chang

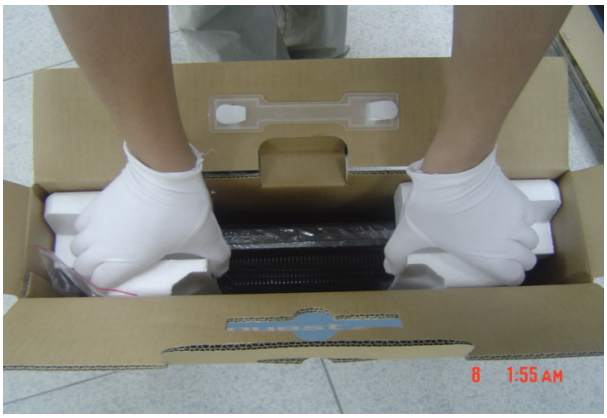
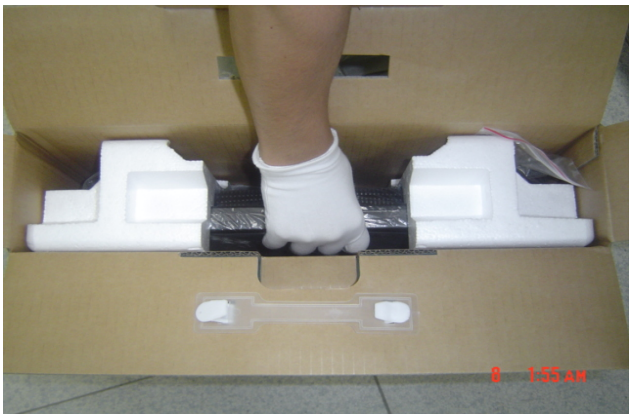
TABLE OF CONTENTS

1.	Precautions and Safety Notices	1
2.	Specification	4
3.	Front Panel Function Control Description	13
4.	Circuit Description	16
5.	Adjustment Procedure	23
6.	Troubleshooting Flow Chart	47
7.	Recommended Spare Parts List	55
8.	Exploded Diagram and Exploded Parts List	60
9.	Block Diagram	65
10.	Schematic Diagrams	66
11.	PCB Layout Diagrams	72

1. Precautions and Safety Notices

1. Please carefully read this manual before operating the device and keep it available for future reference.
2. To avoid the danger of the monitor falling and thereby possibly causing injury and/or serious damage to the monitor itself, do not place it on unstable cars or desks. Be careful to avoid placing any stress on the LCD screen during handling.
3. Do not place this monitor in areas that are wet or where water or other liquids may come in contact with it, such as bathrooms, kitchens, wet floors, near washing machines or by swimming pools.
4. Remove the power plug from the electrical socket before cleaning. No water-containing cleaning agent should be used to clean the screen, but only cleaning agents formulated specifically for cleaning LCD screens. Do not put any liquid cleaning agent directly on the screen, but put it on a soft cloth first and then gently apply the cloth to the screen.
5. In order to guarantee reliable operation and adequate heat dissipation, do not cover or block vent holes on the monitor. Do not put the monitor close to heat sources. Do not place the monitor on furniture such as a bookshelf, unless sufficient ventilation is available.
6. A 3-pin grounding plug is provided for this monitor. In order to guarantee normal operation and safety of this unit, this plug should be used with a matching grounded power socket.
7. Please follow all warnings and instructions that accompany the monitor.
8. Please pay special attention to power supply overloads, as electrical shock or fire may occur.
9. Do not place anything on the power cord. Do not hang the power cord over an area where people or objects may pass.
10. In case the monitor is not be used for an extended period, turn off power to avoid the possibility of short circuits caused by lightning.
11. In order to avoid electrical shock or fire risks, do not insert any object through any openings in the monitor's enclosure. Do not allow any liquid to come in contact with the monitor.
12. In case of any abnormal noise or odor caused by incorrect operation, turn off power immediately and contact a professional technician. Do not attempt to repair this monitor by yourself, as electrical shock may occur when opening the back cover or accessing internal components.
13. If any of the following conditions occurs, turn off power and contact a repair service provider:
    1) the power cord is damaged or worn;
    2) liquid has gotten into the monitor, or the monitor has experienced immersion or wetting;
    3) the monitor has fallen;
    4) the monitor's performance shows obvious changes;
    5) the monitor fails to work normally when correct procedures are followed. In that case, please make any adjustments in accordance with instructions supplied with the monitor; do not attempt any changes to established procedures, as further damage may occur, making successful repair of the monitor more difficult.
14. In case parts need to be replaced, you must use identical parts or those supplied by our certified manufacturers. Any other parts used without our authorization may result in electrical shock or fire risk.

Handing and Placing methods

Correct methods	Incorrect methods
Only touch the metal frame of the LCD panel or the front cover of the monitor, DO not touch the surface of the POL	Surface of the LCD panel is pressed by fingers and that may cause”mura”
Take out the monitor with cushions	Taking out the monitor by grasping the LCD panel, that May cause”mura”
	

Place the monitor on a clean and soft foam pad 	Placing the monitor on a foreign objects, that could scratch The surface of the "Panel" or cause "mura"
	The panel is placed facedown the lap,that may cause "mura"

2. Specification

INTRODUCTION

FEATURES		VA903b-3 / VA903m-3
1st TFT LCD panel	Size	19 “
	Luminance (Typ)	300 cd/㎡
	Contrast Ratio (Typ)	700 :1
	Colors	16.2 M colors (6+2bit panel)
	Response Time (Typ)	8 ms
	Viewing Angle (H/V)	150 ° / 135 °
	Recommend resolution	1280 x 1024 @60Hz
Input Signal	Analog (75ohms, 1.0 Vp-p)	Yes
	Digital (DVI-D)	No
Sync Compatibility	Separate Sync	Yes
	Composite Sync	No
	Sync on Green	No
Compatibility	PC	Yes
	Power Mac	Yes
	TV Box (NextVision 6)	Yes
Power Voltage	AC 100-240V, 50/60Hz	Yes
Power Consumption	On Mode(Max / Typ)	Under 36 W in max/32W IN TYP
	Active Off Mode (Max)	Saving mode< 2W Off mode <1 W
Ergonomics	Tilt (-5 ° - 22.5 °)	Yes
	Swivel	No
	Pivot	No
	Height Adjust	No
OSD Control	[1] [2] [⏻][▲] [▼]	Yes
Dimension	Physical (W x H x D)	416*429*210mm
	Package (W x H x D)	485*503*163mm
Weight	Physical (Net Weight)	4.6Kg / 10.12 lb
	Package (Gross Weight)	5.8Kg/ 12.76 lb
Operating Condition	Temperature (℉/℃)	32℉~104℉ / 0℃~40℃
	Humidity (%)	20 % - 90 %
Storage Condition	Temperature (℉/℃)	-4℉~140℉ / -20℃~60℃
	Humidity (%)	5 % - 90 %
Regulation	UL/cUL, FCC-B,TUV-S, CB, CE, TUV/GS, TUV/ERGO, TCO03, BSMI, CCC, (PSB), (C-TICK), GOST-R/HYGIENIC, SASO, WEEE, RoHS, ENERGY STAR,	

Product definition and specification

Product Name	VA903b-3 / VA903m-3
Model Number	VS11372
Region	M model for America E model for Europe G model for China P model for Asia A model for Australia S model for Singapore K model for Korea U model for UK
OSD Languages	English, French, German, Italian, Spanish, Finnish, Japanese, Traditional Chinese, Simplified Chinese
TFT LCD Panel and Model #	HSD, Model # :190ME13-A16/A10
Scalar	RTD, Model # : RTD2023L
Input Signal	Analog
Sync Compatibility	Separate
Audio	1 W @ < 15% distortion (For VA903m-3 only)
Adapter	No
Power Cable	Refer to Appendix D
Analog Cable (1.8 m, color : black), with PC 2001 and Hot Plug Detect &DDC	Yes
Audio Cable (1.8m, Color: black) with PC 2001	Yes (For VA903m-3 only)
ViewSonic CD Wizard	Arabic, English, Finnish, Spanish, German, Italian, Swedish, Polish, Korean, Portuguese, Russian, French, Simplified Chinese, Traditional Chinese, Hungary, Czech, Turkish
ViewSonic Quick Start Guide	
Screen Protector Mylar	Yes
Hi Pot label	Yes
QA pass label	For G model only
Hg Warning label	Yes
Warranty Sticker	For G model only
Warranty Card	For G model only
Carton Sticker	For G model only
PE bag of Carton	For G model only

GENERAL specification

Test Resolution & Frequency	1280 x 1024 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 70%, Brightness = 100%

VIDEO INTERFACE

Analog Input Connector	DB-15 (Analog), refer the appendix A
Default Input Connector	Defaults to the first detected input
Video Cable Strain Relief	Equal to twice the weight of the monitor for five minutes
Video Cable Connector DB-15 Pin out	Compliant DDC 2B
Video Signals	Video RGB (Analog), Separate
Video Impedance	75 Ohms (Analog)
Maximum PC Video Signal	950 mV with no damage to monitor
Maximum Mac Video Signal	1250 mV with no damage to monitor
Sync Signals	TTL
DDC 2B	Compliant with Revision 1.3
Sync Compatibility	Separate Sync
Video Compatibility	Shall be compatible with all PC type computers, Macintosh computers, and after market video cards
Resolution Compatibility	640 x 350, 640 x 480, 720 x 400 (640 x 400), 800 x 600, 832 x 624, 1024 x 768, 1152 x 864, 1280 x 1024
Exclusions	Not compatible with interlaced video

POWER SUPPLY

Internal Power Supply	Part Number: PI-SB03/
Input Voltage Range	100 - 240VAC
Input Frequency Range	50/ 60 Hertz
Short Circuit Protection	OUTPUT CAN BE SHORTED WITHOUT DAMAGE
Over Current Protection	6.0 A TYPICAL AT 5.0 VDC
Leakage Current	1.0 MA (MAX) AT 264 VAC / 60HZ
Efficiency	80 % TYPICAL AT 115 VAC FULL LOAD
Fuse	INTERNAL AND NOT USER REPLACEABLE
Power Dissipation	32 WATTS (TYP)
Max Input AC Current	1.2 ARMS @ 90VAC, 0.8 ARMS @180VAC
Inrush Current (Cold Start)	30 A @ 90VAC, 60 A(MAX) @ 264 VAC
Power Supply Cold Start	SHALL START AND FUNCTION PROPERLY WHEN UNDER FULL LOAD, WITH ALL COMBINATIONS OF INPUT VOLTAGE, INPUT FREQUENCY, AND OPERATING TEMPERATURE

Power Supply Transient Immunity	SHALL BE ABLE TO WITHSTAND AN ANSI/IEEE C62.41-1980 6000V 200 AMPERE RING WAVE TRANSIENT TEST WITH NO DAMAGE
Power Supply Line Surge Immunity	Shall be able to withstand 1.5 times nominal line voltage for one cycle with no damage
Power Supply Missing Cycle Immunity	Shall be able to function properly, without reset or visible screen artifacts, when ½ cycle of AC power is randomly missing at nominal input
Power Supply Acoustics	The power supply shall not produce audible noise that would be detectable by the user. Audible shall define to be in compliance with ISO 7779 (DIN EN27779:1991) Noise measurements of machines acoustics. Power Switch noise shall not be considered
US Type Power Cable	Length = 1.8m. Connects to AC/DC Power Color = Black
Power Saving Operation (Method)	VESA DPMS Signaling
Power Consumption	ON Mode < 36 W (max) pOWER sAVING < 2W ,OFF < 1W
Recovery Time	On Mode = N/A, Active Off < 3 sec

ELECTRICAL REQUIREMENTS

Horizontal / Vertical Frequency

Horizontal Frequency	30 – 82 kHz
Vertical Refresh Rate	50 – 85 Hz.
Maximum Pixel Clock	135 MHz
Sync Polarity	Independent of sync polarity.

Timing Table

Item	Timing	Analog
1	640 x 350 @ 70Hz, 31.5kHz	Yes
2	640 x 480 @ 50Hz, 24.68KHZ	Yes
3	640 x 480 @ 60Hz, 31.5kHz	Yes
4	MAC 640 x 480 @ 67Hz, 35.0kHz	Yes
5	640 x 480 @ 72Hz, 37.9kHz	Yes
6	640 x 480 @ 75Hz, 37.5kHz	Yes
7	640 x 480 @ 85Hz, 43.27kHz	Yes
8	720 x 400 @ 70Hz, 31.5kHz	Yes
9	800 x 600 @ 56Hz, 35.1kHz	Yes
10	800 x 600 @ 60Hz, 37.9kHz	Yes
11	800 x 600 @ 72Hz, 48.1kHz	Yes

12	800 x 600 @ 75Hz, 46.9kHz	Yes
13	800 x 600 @ 85Hz, 53.7kHz	Yes
14	MAC 832 x 624 @ 75Hz, 49.7kHz	Yes
15	1024 x 768 @ 60Hz, 48.4kHz	Yes
16	1024 x 768 @ 70Hz, 56.5kHz	Yes
17	1024 x 768 @ 72Hz, 58.1kHz	Yes
18	1024 x 768 @ 75Hz, 60.0kHz	Yes
19	1024 x 768 @ 85Hz, 68.67KHZ	Yes
20	1152 x 864 @ 75Hz, 67.5KHZ	Yes
21	MAC 1152x870@75HZ, 68.68KHZ	Yes
22	1280 x 960 @ 60Hz, 44.93KHZ	Yes
23	1280 x 960 @75Hz, 56.25KHZ	Yes
24	1280 x 1024 @ 60Hz, 63.98KHZ	Yes
25	1280 x 1024 @ 75Hz, 79.97KHZ	Yes

*1. Tolerance ≧ ± 2kHz.

*2. Any timing not in the list, it should display as normal or show on “OUT OF RANGE” OSD message without blanking.

*3. The image quality of 85Hz mode might be worse than 75Hz.

Primary Presets

1280 x 1024 @ 60Hz

User Presets

Number of User Presets (recognized timings) Available: 10 presets total in FIFO configuration

Changing Modes

- Maximum Mode Change Blank Time for image stability : 3 seconds (Max), excluding “Auto Image Adjust” time
- Under DOS mode (640 x 350, 720 x 400 & 640 x 400), it should recall factory setting when execute “Auto Adjust”
- The monitor needs to do “Auto Image Adjust” the first time a new mode is detected (See section “0-Touch™ Function Actions”)
- The monitor needs to do “Auto Adjust” the first time a new mode is detected (See section “0-Touch™ Function Actions”)

AUDIO INTERFACE (SPEAKER SPECIFICATION) (**For VA903m-3 only**)

Line input connection	3.5 mm stereo jack
Line input signal	1.0Vrms
Line input impedance	>10 kOhm
Maximum power output (Electric)	1 W @ <15% DISTORTION
Signal to Noise Ratio	50 dB
Frequency response	200 Hz – 20 Khz
Distortion	<15% THD (@1kHz)
Vibration	There should be no audible vibration with volume at 100%. (Input signal within 1.0 Vrms)
Screen image	There should be no affect on the screen image stability under any conditions
Connector PC99 requirement Audio in	Lime Green pantone # 577C
Cable type / length	3.5mm stereo cable / 1.8m length
Audio DPMS	NOTE: THERE IS NO GUARANTEE <1 W POWER CONSUMPTION IN ACTIVE OFF MODE, WHEN THE AUDIO CABLE IS CONNECTED

TFT LCD PANEL

1st Panel Source	HSD 190ME13-A16/A10
Type	TN, LVDS
Active Size	376.32 mm (H) x 301.056mm (V)
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.294 mm
Glass Treatment	ANTI GLARE (HARD COATING 3H)
# of Backlights	4 CCFL EDGE-LIGHT
Backlight Life	50,000 HOURS (MAX) / 40,000 HOURS (MIN)
Luminance –Condition: CT = 6500 K Contrast = Max, Brightness = Max	300 CD/M2 (TYP AFTER 30 MINUTE WARM UP) 240 CD/M2 (MIN AFTER 30 MINUTE WARM UP)
Brightness Uniformity	75 % (min)
Contrast Ratio	700 :1 (Typ), 450 :1 (Min)
Color Depth Vertical)	16.2 million colors (6+2 bit panel)
Viewing Angle (Horizontal)	150 deg (Typ)@ CR>10 160 deg (Typ)@ CR>5
Viewing Angle (Vertical)	135 deg (Typ) @ CR>10 150 deg (Typ)@ CR>5
Response Time 10%-90% @ Ta=25°C	8 ms (Tr= 2 ms, Tf = 6 ms) (Typ) 12 ms (Tr= 4 ms, Tf = 8 ms) (max)
Panel Defects	Please see Panel Quality Specifications.

IMAGE PERFORMANCE

Display Size

Horizontal Display Size, Primary Preset	FULL SCREEN
Vertical Display Size, Primary Preset	FULL SCREEN

Luminance

Lv (Max) –Condition: Brightness / Contrast = 100% CCT = USER COLOR (R/G/B=100%)	Lv (Max) = The Luminance requirement of section 4-6 "TFT LCD PANEL"
Lv (6500Kf) –Condition: Brightness / Contrast = Default Color Temperature = 6500K	Lv (6500K) / Lv (Max) x 100% ≧ 85%
Lv (sRGB) –Condition: Brightness / Contrast = Default CCT =sRGB	Lv (sRGB) / Lv (Max) x 100% ≧85%
Lv (9300K) –Condition: Brightness / Contrast = Default CCT = 9300K	Lv (9300K) / Lv (Max) x 100% > 70%
Lv (5400K) –Condition: Brightness / Contrast = Default CCT = 5400K	Lv (5400K) / Lv (Max) x 100% > 75%
Lv (Brightness) –Condition: Contrast = 100%	Lv(Brightness=0%) / Lv(Brightness=100%) x 100% ≤ 55%
Lv (Contrast) –Condition: Brightness = 100%	Lv(Contrast=0%) / Lv(Contrast=100%) x 100% ≤ 30%

Contrast Ratio

CR(Max) –Condition: Contrast / Brightness = 100% CCT = USER COLOR (R/G/B=100%)	Same as the Contrast Ratio in section 4-6 "TFT LCD PANEL"
CR(6500K) –Condition: Contrast / Brightness = 100% CCT = 6500K	CR(6500K) / CR(Max) ≧ 93%

Saturation

Contrast = Default Brightness = Default Test pattern = 64-gray	NO VISIBLE SATURATION
Contrast = 100% Brightness = 100% Test pattern = 64-gray	8~10 VISIBLE SATURATION

Contrast = 100% Brightness = 100% Input signal level = 720mV Test pattern = 64-gray	8~10 VISIBLE SATURATION

Preset Color Temperatures

sRGB	It should meet IEC 61966-2-1 (1999-10) standard.
Preset 1	CCT (typ) = **9300K** (u'$_{CCT}$=0.1888; v'$_{CCT}$=0.4457) CCT (max) = 10250K, CCT (min) = 8500K △u'v'<0.01 (@ Full White pattern)
Preset 2 (Primary)	CCT (typ) = **6500K** (u'$_{CCT}$=0.1978; v'$_{CCT}$=0.4684) CCT (max) = 6950K, CCT (min) = 6100K △u'v'<0.01 (@ Full White pattern)
Preset 3	CCT (typ) = **5400K** (u'$_{CCT}$=0.2044; v'$_{CCT}$=0.4808) CCT (max) = 6185K, CCT (min) = 4935K △u'v'<0.01 (@ Full White pattern)
Preset Color Temperature	Each color preset shall be adjustable. Red, Green, and Blue shall be individually controlled.

Video Cards Compatibility

Peaking Performance: Peaking is not adjustable

Raster Artifacts

- Video Artifacts : No visible streaking, sag, or smearing artifacts when driven by the specified video cards in the primary mode and after user adjustment to best condition
- Power Supply, and Grounding Artifacts : No visible artifacts in any specified video mode within the horizontal or vertical frequency range of the monitor
- Temperature Drift : Image shall not drift or lose fine-tune adjustment

MECHANICAL

Dimension

Dimension (Desktop)	
Width	416mm
Height (Height adjust to the bottom)	429mm
Depth	210mm
Monitor Weight	4.6KG / 10.12lb
*Refer to Figure 1	
Dimension (Head Only / Wall Mount)	
Width	416mm
Height	364mm
Depth	68mm
Monitor Weight	4.2KG / 9.25lb
*Refer to Figure 1	

Ergonomics

Tilt Up step 1	0° TO 20.5°±3°
Tilt Down	From 0º down to -5º
Swivel Right	N/A
Swivel Left	N/A
Height Adjust	N/A
Pivot	N/A

3. FRONT PANEL CONTROLS AND INDICATORS

Short Cuts Function from the button(s)

[1]	Main Menu
[2]	Auto Image Adjust
[▼] or [▲]	To immediately activate Contrast menu. It should be change to Brightness OSD by push button [2]
[▼]+ [▲]	Recall both of Contrast and Brightness to default
[1] + [2]	Toggle 720x400 and 640x400 mode when input 720x400 or 640x400 mode
[1] + [▼] + [▲] (keep pushing 5 sec)	White Balance (Not shown on user's guide)
[1] + [▼]	Power Lock
[1] + [▲]	OSD Lock
Remark : All the short cuts function are only available while OSD off	

Front Panel Hardware Controls

Power Switch (Front Head)	Power Control, soft Power Switch.
Power LED (Front Head)	Green – On / Orange – Active Off Dark = Soft Power Switch OFF
Front Panel Controls (Head) [1] [2] [⏻][▲] [▼]	[⏻] Power [1] BUTTON 1 [2] Button 2 [▲] UP ARROW BUTTON [▼] DOWN ARROW BUTTON Note: Power Button, Button 1 and Button 2 must be one-shot logic operation. (i.e. there should be no cycling)
Reaction Time	OSD must fully appear within 0.5s after pushing [1]

Main Menu Controls

Auto Image Adjust
Contrast/Brightness*1
Audio Adjust (**For VA903m-3 only**)
Volume*3, Mute*3
Color Adjust
sRGB, 9300K, 6500K(default), 5400, User Color [R, G, B]
Information
H Frequency, V Frequency, Pixel Clock, Resolution, Serial Number, Model Number, "www.ViewSonic.com"
Manual Image Adjust
H. Size, H/V Position, Fine Tune, Sharpness*2
Setup Menu
Language [English, French, German, Italian, Spanish, Finnish, Simplified Chinese Traditional Chinese, Japanese], Resolution Notice, OSD Position*1, OSD Timeout, OSD Background
Memory Recall
*1 These functions can be recalled to default by [▼]+ [▲]
*2 These functions are not available under Native Resolution Mode
*3 These functions setting can be recalled to default by [▼]+[▲] under audio mode
[Remark] Please refer to the detail in the Appendix C

Function descriptions

OSD Lock short cuts function for the buttons

The OSD lock will be activated by pressing the front panel control buttons "(1), & (▲)" for 10 seconds. If the user then tries to access the OSD by pressing any of the buttons "1", "▼", "▲", "2" a message will appear on the screen for 3 seconds showing "OSD Locked". The OSD lock will be deactivated by pressing the front panel control buttons "(1), & (▲)" again for 10 seconds.

Note1: When the OSD is locked will lock all functions, including “Volume” and “Mute”

Note 2: Status bar indicating OSD Lock or Unlock is in progress and when complete it will indicate “OSD Locked”

Note 3: OSD Lock should not lock Power Button and Power Lock function

Power Lock short cuts function for the buttons

The power button lock will be activated by pressing the front panel control buttons "(1), & (▼)" for 10 seconds. Locking the power button means that the user won't be able to turn off the LCD while the power button is locked. If the user presses the power button while it is locked, a message will appear on the screen for 3 seconds showing "Power Button Locked". It also means that with the power button locked, the LCD would automatically turn back "On" when power is restored after a power failure. If the power button is not in the locked mode, then power should return to it's previous state when power is restored after a power failure. The power button lock will be deactivated by pressing the front panel control buttons "(1), & (▼)" again for 10 seconds

Note 1: Status bar indicating Power Button lock or unlock is in progress and when complete it will indicate “Power Button Locked”

Note 2: Power should only be lockable in the “On State”

Memory Recall Actions

Memory Recall action on the analog and digital mode as below

1. Set the factory defaults as shown in Section 4-7
2. Clean all the mode setting buffer
3. Execute Auto Image Adjust

Note: Memory Recall should have no effect for Language, Power Lock, User Color Settings

Resolution Notice Actions

1. Resolution Notice OSD should show on screen after changing to non-native mode for 30 sec
2. The OSD should disappear after 10 sec or by pushing button [1] or [2]

Resolution Notice function should be disabled when push button [2] under Resolution Notice OSD

0-Touch™ Function Actions

1. Execute Auto Image Adjust when new mode detected, and save the settings to buffer for further use
2. It should be reset by Memory Recall function

(Should not reset by power off, power unplug and others)

OSD Auto Save

The OSD shall save new settings when it is turned off by the user or when it times out. There shall not be a separate save

Factory Defaults

Item	Defaults	Item	Defaults
Contrast	70%	Volume	50% (For VA903m-3 only)
Brightness	100%	Balance	N/A
Color Temperature	6500K	Treble	N/A
Sharpness	0%	Bass	N/A
OSD H. Position	50%	720x400/640x400	720x400
OSD V. Position	50%	640x480@60Hz 720x480@60Hz	640x480@60Hz
OSD Time Out	15 Sec	In SOG and Composite, 720x480@60Hz 640x480@60Hz	N/A
OSD Background	Enabled	In SOG and Composite, 1152x864@75Hz 1152x870@75Hz	N/A
Resolution Notice	Enabled	In SOG and Composite, 1280x768@60/75/85Hz 1024x768@60/75/85Hz	N/A

AUDIO INTERFACE (SPEAKER SPECIFICATION) (**For VA903m-3 only**)

Line input connection	3.5 mm stereo jack
Line input signal	1.0Vrms
Line input impedance	>10 kOhm
Maximum power output (Electric)	1 W @ <15% distortion
Signal to Noise Ratio	50 dB
Frequency response	200 Hz – 20 Khz
Distortion	<15% THD (@1kHz)
Vibration	There should be no audible vibration with volume at 100%. (Input signal within 1.0 Vrms)
Screen image	There should be no affect on the screen image stability under any conditions
Connector PC99 requirement Audio in	Lime Green pantone # 577C
Cable type / length	3.5mm stereo cable / 1.8m length
Audio DPMS	Note: There is no guarantee <1 W power consumption in Active Off mode, when the Audio Cable is connected

4. Circuit Description

A. AC-DC CONVERTER

The power supply with a high-integrated green-mode PWM controller provides several features to enhance the performance of power flyback converters.

U801 is a PWM controller and provides many protection functions.

U802 is a photo couple to transfer the feedback signal from the second side which U803 detected both of the output DC voltage on 5V and 24V.

Z802 detected the working voltage on U801 and Q802 would pull down the voltage on U801 pin5 to shut down U801 if feedback loop was failed.

R828 would be a dynamic load which was active while backlight was turned off and system still working on, this kept 24V output voltage under 32V to protect the panel. After system went to power saving mode, the R828 would no loaded. This was detected by Z803 active the R828 to load or not.

B，Scaling Controller

Overview

Realtek RTD2523B series products are all-in-one LCD monitor controllers support up to SXGA/XGA(optional), and integrate Realtek high performance ADC, TMDS Rx(optional), scaling engine, OSD engine, LVDS TX, RSDS TX and so on. Moreover, all products are pin compatible in low pin count package to save cost and make the design easier

General

- Embedded dual DDC support DDC1, DDC2B, DDC/CI
- Zoom scaling up and down
- Embedded Pattern Generator
- No external memory required.
- Require only one crystal to generate all timing
- Embedded reset control output
- Embedded crystal output to MICROP
- 3 channels 8 bits PWM output, and selectable PWM clock frequency.

Pin Description

(I/O Legend: A = Analog, I = Input, O = Output, P = Power, G = Ground)

■ **ADC: 15 pins**

Name	I/O	Pin No	Description	Note
ADC_GND	AG	27	ADC ground	
ADC_REFIO	AP	28	ADC band-gap voltage de-coupling	1.20V
ADC_VDD	AP	29	Analog power	(3.3V)
BLUE+	AI	30	Analog input from BLUE channel	
BLUE-	AI	31	Analog input ground from BLUE channel	
ADC_GND	AG	32	ADC ground	
SOG/ADC_TEST	AIO	33	SOG in/ADC test pin	
GREEN+	AI	34	Analog input from GREEN channel	
GREEN-	AI	35	Analog input ground from GREEN channel	
ADCB_VDD	AP	36	Analog power	(3.3V)
RED+	AI	37	Analog input from RED channel	

RED-	AI	38	Analog input ground from RED channel	
ADC_GND	AG	39	Analog ground	
ADC_GND	AG	40	Analog ground	
ADC_VDD	AP	41	Analog power	(3.3V)
AHS	AI	42	Analog HS input	**(10)**, (4), (5)
AVS	AI	43	Analog VS input	(2), (4), (5)

■ PLL: 8 pins

Name	I/O	Pin No	Description	Note
XO	AI	1	Reference clock output	
XI	AO	2	Reference clock input	
DPLL_GND	AG	3	Ground for digital PLL	
DPLL_VDD	AP	4	Power for digital PLL	(3.3V)
APLL_VDD	AP	5	Power for multi-phase PLL	(3.3V)
PLL_TEST1	AIO	6	Test Pin 1 / IRQ#	
PLL_TEST2	AIO	7	Test Pin 2/Power-on-latch for crystal out Frequency	
APLL_GND	AG	8	Ground for multi-phase PLL	

■ Control Interface: 7 pins

Name	I/O	Pin No	Description	Note
SDIO [0]	IO	54	Serial control I/F data in / Parallel port data [0]	(2), (3), / 2mA
SDIO [1] / TCON [4] / BBLU [0]	IO	53	Parallel port data [1] / TCON [4] / TTL BBLU [0]	(1), (2), (3), / 2mA
SDIO [2] / TCON [3] / BBLU [1]	IO	52	Parallel port data [2] / TCON [3] / TTL BBLU [1]	(1), (2), (3), / 2mA
SDIO [3] / PWM2 / TCON [2]	IO	51	Parallel port data [1] / TCON [4] / PWM2	(1), (2), (3), / 2mA
SCLK	I	50	Serial control I/F clock	(2), (3), (5)
SCSB	I	111	Serial control I/F chip select	(2), (3), (5)
RESET	O	56	RESET output for Micron	(2), (5), (6) / 2mA

■ Display & TCON/VIDEO-8 Port: 54 pins

: LVDS+RSDS+TTLO : RSDS+TTLO : RSDS+TTLIO : TTLO : TTLIO

Pin NO.	6-bits Dual RSDS	6 bits Single RSDS	8/6 bits Dual/Single LVDS	8 bits Dual/Single TTL	6 bits Dual/Single TTL	Note
51	S[3] / TCON[2] / PWM2	S[3] / TCON[2] / PWM2	S[3] / TCON[2] / PWM2	S[3] / TCON[2] / PWM2	S[3] / TCON[2] / PWM2	(1), (2), (3)/ 2mA
52	S[2] / TCON[3]	S[2] / TCON[3]	S[2] / TCON[3]	S[2] /BBLU[1] / TCON[3]	S[2] / TCON[3]	(1), (2), (3)/ 2mA

53	S[1] / TCON[4]	S[1] / TCON[4]	S[1] / TCON[4]	S[1]/ BBLU[0] / TCON[4]	S[1] / TCON[4]	(1), (2), (3)/ 2mA
55	PWM2 / COUT / TCON[13]	PWM2 / COUT / TCON[13]	PWM2 / COUT / TCON[13]	PWM2 / COUT / TCON[13]	PWM2 / COUT / TCON[13]	(1), (2), (3)/ 2mA
59	BB3P	BB3P	NC	BBLU [7]	BBLU [7]	
60	BB3N	BB3N	NC	BBLU [6]	BBLU [6]	
61	BB2P	BB2P	NC	BBLU [5]	BBLU [5]	
62	BB2N	BB2N	NC	BBLU [4]	BBLU [4]	
63	BB1P	BB1P	NC	BBLU [3]/T0	BBLU [3]	
64	BB1N	BB1N	NC	BBLU [2]/T1	BBLU [2]	
65	BCLKP	BCLKP	NC	BGRN [1]/T2	TCON [6]	
66	BCLKN	BCLKN	NC	BGRN [0]/T3	TCON [5]	
67	BG3P	BG3P	NC	BGRN [7]	BGRN [7]	
68	BG3N	BG3N	NC	BGRN [6]	BGRN [6]	
73	BG2P	BG2P	TODP	BGRN [5]/T4	BGRN [5]	
74	BG2N	BG2N	TODN	BGRN [4]/T5	BGRN [4]	
75	BG1P	BG1P	TOCLKP	BGRN [3]/T6	BGRN [3]	
76	BG1N	BG1N	TOCLKN	BGRN [2]/T7	BGRN [2]	
77	BR3P	BR3P	TOCP	BRED [7]/T8	BRED [7]	
78	BR3N	BR3N	TOCN	BRED [6]/T9	BRED [6]	
79	BR2P	BR2P	TOBP	BRED [5]/T10	BRED [5]	
80	BR2N	BR2N	TOBP	BRED [4]/T11	BRED [4]	
81	BR1P	BR1P	TOAP	BRED [3]/T12	BRED [3]	
82	BR1N	BR1N	TOAP	BRED [2]/T13	BRED [2]	
85	AB3P	NC	TEDP	ABLU [7]/T14	ABLU [7]	
86	AB3N	NC	TEDN	ABLU [6]/T15	ABLU [6]	
87	AB2P	NC	TECLKP	ABLU [5]/T16	ABLU [5]	
88	AB2N	NC	TECLKN	ABLU [4]/T17	ABLU [4]	
89	AB1P	NC	TECP	ABLU [3]/T18	ABLU [3]	
90	AB1N	NC	TECN	ABLU [2]/T19	ABLU [2]	
91	ACLKP	NC	TEBP	ABLU [1]/T20	TCON [1]	
92	ACLKN	NC	TEBN	ABLU [0]/T21	TCON [0]	
93	AG3P	NC	TEAP	AGRN [7]/T22	AGRN [7]	
94	AG3N	NC	TEAN	AGRN [6]/T23	AGRN [6]	
99	AG2P	TCON [11]	NC	AGRN [5]/T24	AGRN [5]	
100	AG2N	TCON [10]	NC	AGRN [4]/T25	AGRN [4]	
101	AG1P	TCON [9]	NC	AGRN [3]/T26	AGRN [3]	
102	AG1N	TCON [8]	NC	AGRN [2]/T27	AGRN [2]	
103	AR3P	TCON [7]	NC	ARED [7]/T28	ARED [7]	

104	AR3N	TCON [6]	NC	ARED [6]/T29	ARED [6]	
105	AR2P	TCON [5]	NC	ARED [5]/TH	ARED [5]	
106	AR2N	TCON [1]	NC	ARED [4]/TV	ARED [4]	
107	AR1P	TCON [0]	NC	ARED [3]/TE	ARED [3]	
108	AR1N	NC	NC	ARED [2]/TK	ARED [2]	
113	PWM2 / COUT / TCON[12]	PWM2 / COUT / TCON[12]	PWM2 / COUT / TCON[12]	ARED [1]	PWM2 / COUT / TCON[12]	(9)
114	TCON [11] /V[0]	V [0]	V [0]	ARED [0]	TCON [11]	(1), (7), (8)
115	TCON [10] /V[1]	V [1]	V [1]	BRED [1]	TCON [10]	(1), (7), (8)
116	TCON [9] / V[2]	V [2]	V [2]	BRED [0]	TCON [9]	(1), (7), (8)
117	TCON [8] / V[3]	V [3]	V [3]	AGRN [1]	TCON [8]	(1), (7), (8)
118	TCON [7] / V[4]	V [4]	V [4]	AGRN [0]	TCON [7]	(1), (7), (8)
119	TCON [6] / V[5]	V [5]	V [5]	DHS	DHS	(1), (7), (8)
122	TCON [5] / V[6]	V [6]	V [6]	DVS	DVS	(1), (7), (8)
123	TCON [1] / V[7]	V [7]	V [7]	DENA	DENA	(1), (7), (8)
124	TCON [0] / VCLK	VCLK	VCLK	DCLK / TCLK	DCLK / TCLK	(1), (7), (8)

■ TMDS: 18 pins

Name	I/O	Pin No	*Description*	Note
TMDS_TST/ PWM1	AIO	9	TMDS_TEST Pin / PWM1 / Power-on-latch for serial / parallel port	
TMDS_GND	G	10		
TMDS_VDD	P	11		(3.3V)
EXT_RES	A	12	Impedance Match Reference.	
TMDS_VDD	P	13		(3.3V)
RX2P	I	14	Differential Data Input	
RX2N	I	15	Differential Data Input	
TMDS_GND	G	16		
RX1P	I	17	Differential Data Input	
RX1N	I	18	Differential Data Input	

TMDS_VDD	P	19		(3.3V)
RX0P	I	20	Differential Data Input	
RX0N	I	21	Differential Data Input	
TMDS_GND	G	22		
RXCP	I	23	Differential Data Input	
RXCN	I	24	Differential Data Input	
TMDS_GND	G	25		
TMDS_VDD	P	26		(3.3V)

■ PWM Interface: 3-2=1 pin (PWM1, PWM2 can be selected from 1 of 3 possible pins.)

Name	I/O	Pin No	Description	Note
PWM2 / TCON [2] / S [3]	O	51	PWM2 / TCON [2] / SDIO [3]	(1), (2), (3), (5), (8),
PWM2 / TCON [13] / COUT	O	55	PWM2 / TCON [13] / Crystal out	(2), (8), (9)
PWM2 / TCON [12] / COUT	O	113	PWM2 / TCON [12] / Crystal out	(2), (8), (9)
PWM1 / TMDS_TST	AIO	9	PWM1/ TMDS_TEST Pin / Power-on-latch for serial / parallel port	(2), (7), (8)
PWM1 / DDCSDA / TCON [1] / BBLU [0]	IO	47	PWM1 / DDC serial control I/F data input / output / TCON [4]	(1), (2), (3), (5), (8),
PWM1 / DDCSDA2 (HDCP) / TCON [7]	IO	125	PWM1 / DDC serial control I/F data input / output / TCON [7]	(1), (2), (3), (5), (8),
PWM0 / REFCLK	IO	112	PWM0 / (In / out) test pin for DCLK / Video8 even-odd signal	(2), (9)

■ DDC Channel: 4 pins

Name	I/O	Pin No	Description	Note
DDCSCL / TCON [0] / BBLU [1]	I	46	DDC serial control I/F clock / TCON [0] / TTL BBLU [1]	(2), (3), (5)
DDCSDA / TCON [1] / PWM1 / BBLU [0]	IO	47	DDC serial control I/F data input / output / TCON [1] / PWM1 / TTL BBLU [0]	(1), (2), (3), (5), (6), (8)/ 8mA /no slew
DDCSCL2 (HDCP) / TCON [5]	I	126	DDC serial control I/F clock / TCON [5]	(2), (3), (5)
DDCSDA2 (HDCP) / TCON [7] /PWM1	IO	125	DDC serial control I/F data input / output / TCON [7] / PWM1	(1), (2), (3), (5), (6), (8)/ 8mA /no slew

■ Power & Ground: 22 pins

Name	I/O	Pin No	Description
3.3V Power	P	49,121	VCCIO: 2

3.3V Ground	G	48,120	GNDIO: 2
3.3V Power	P	58,71,83,95,110	PVCC: 5
3.3V Ground	G	57,72,84,96,109	PGND: 5
2.5V Power	P	45,69,98,127	VCCK: 4
2.5V Ground	G	44,70,97,128	GNDIK: 4

Note: (1) TTL compatible CMOS Input (Vt=1.7V); VCC=3.3V;
(2) 5V tolerance pad;
(3) Internal 75K Ohms pull high resistor.
(4) Internal 75K Ohms pull low resistor.
(5) Schmitt trigger CMOS Input (Vt=1.4-~2.2V);
(6) Open-Drain, Output Drive low & Pull-high.
(7) Bi-directional input/output
(8) Programmable driving current (2~10mA)
(9) TTL output 5V & 3.3V
(10) 4V tolerance pad

C, MTV512M

The MTV512M micro-controller is an 8051 CPU core embedded device especially tailored for flat panel display applications. It includes an 8051 CPU core, 768-byte SRAM, 4 channels of 6-bit ADC, 3 external counters/timers, 6 channels of PWM DAC, VESA DDC interface, and a 64K-byte internal program Flash-ROM memory in 44-pin PLCC package

FEATURES

• 8051 core, 12MHz operating frequency with single/double CPU clock option
• 0.35um process; 3.3V power supply
• 768-byte RAM; 64K-byte program Flash memory
• Maximum 6 channels of PWM DAC
• Compliant with VESA DDC1/2B/2Bi/2B+ standard
• Dual slave IIC addresses; two H/W auto transfer DDC1/DDC2x data for both D-sub and DVI interfaces
• Watchdog timer with programmable interval
• Support external counters/timers, 1 & 2
• Single/double frequency clock output
• Two external interrupts, INT1 is shared with Slave IIC interrupt source.
• Maximum 4 channels of 6-bit ADC
• Flash-ROM code protection selection
• 44-pin PLCC package

D. INVERTER

In order to drive the CCFLs embedded in the panel module, there is a push-pull inverter to convert by the controller. from input 24V up to hundreds of AC voltage output peak to peak.

The inverter is formed by symmetric in order to drive the separate lamp modules.

The input stage consists of a PWM controller, push-pull inverter, and switching MOSFET to convert DC input into

AC output.

The output stage consists of a tuning capacitor, transformer, and push-pull MOSFET pair to boost AC output up to hundreds of voltage peak to peak.

And one resister is serial to lamp for output voltage feedback.

There are two signals which control the inverter come from system to turn on the inverter and control brightness.

Logic “low” level which send to U901 is turn on the inverter.

BL-ADJ signal control brightness by DC level which was integral from PWM signal.

5. Adjusting Procedure

1. Function test

1.1 products

19” LCD Monitor

1.2 test equipment

Color video Signal& pattern (Or PC with SXGA resolution and a sound card)

1.3 Test Condition

Before function test and alignment ,each LCD Monitor should be warmed up at least 30 minutes with the following conditions:

A: in roon temperature

B with full white screen ,RGB ,and black

C. with cycled display model:

1280 x 1024 @ 60Hz

1.4 Test display& Pattern

1.4.1 Compatible model

Item	Timing	Analog
1	640 x 350 @ 70Hz, 31.5kHz	**Yes**
2	640 x 480 @ 50Hz, 24.68KHZ	**Yes**
3	640 x 480 @ 60Hz, 31.5kHz	**Yes**
4	MAC 640 x 480 @ 67Hz, 35.0kHz	**Yes**
5	640 x 480 @ 72Hz, 37.9kHz	**Yes**
6	640 x 480 @ 75Hz, 37.5kHz	**Yes**
7	640 x 480 @ 85Hz, 43.27kHz	**Yes**
8	720 x 400 @ 70Hz, 31.5kHz	**Yes**
9	800 x 600 @ 56Hz, 35.1kHz	**Yes**
10	800 x 600 @ 60Hz, 37.9kHz	**Yes**
11	800 x 600 @ 72Hz, 48.1kHz	**Yes**
12	800 x 600 @ 75Hz, 46.9kHz	**Yes**
13	800 x 600 @ 85Hz, 53.7kHz	**Yes**
14	MAC 832 x 624 @ 75Hz, 49.7kHz	**Yes**
15	1024 x 768 @ 60Hz, 48.4kHz	**Yes**
16	1024 x 768 @ 70Hz, 56.5kHz	**Yes**
17	1024 x 768 @ 72Hz, 58.1kHz	**Yes**
18	1024 x 768 @ 75Hz, 60.0kHz	**Yes**
19	1024 x 768 @ 85Hz, 68.67KHZ	**Yes**
20	1152 x 864 @ 75Hz, 67.5KHZ	**Yes**
21	MAC 1152x870@75HZ, 68.68KHZ	**Yes**
22	1280 x 960 @ 60Hz, 44.93KHZ	**Yes**
23	1280 x 960 @75Hz, 56.25KHZ	**Yes**
24	1280 x 1024 @ 60Hz, 63.98KHZ	**Yes**
25	1280 x 1024 @ 75Hz, 79.97KHZ	**Yes**

*1. Tolerance ≧ ± 2kHz.

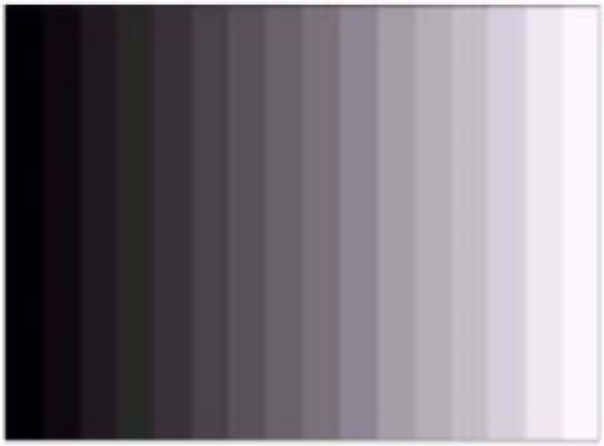
*2. Any timing not in the list, it should display as normal or show on “OUT OF RANGE” OSD message without blanking.

*3. The image quality of 85Hz mode might be worse than 75Hz.

1.4.2 Function Test Display Pattern

Item	Test Content	Pattern	Specification	Remark
1	Frequency & Tracking	Fine Line Moire	Eliminate visual wavy noise.	Figure 1
2	Contrast/Brightness	16 Gray Scale	16 gray levels should be distinguishable.	Figure 2
3	Boundary	Horizontal & Vertical Thickness	Horizontal and Vertical position of video should be adjustable to be within the screen frame.	Figure 3
4	RGB Color Performance	RGB Color Intensities	Contrast of each R, G, B, color should be normal.	Figure 4, 5, 6
5	Screen Uniformity & Flicker	Full White	Should be compliant with the spec.	Figure 7
6	Dead Pixel/Line	White Screen & Dark Screen	The numbers of dead pixels should be compliant with the spec.	Figure 7, 8
7	White Balance	White & Black Pattern	The screen must have the pure white and black pattern, no other color.	Figure 9

Fine Line Morie Pattern (Figure1)



Gray Scale Pattern (Figure2)

Horizontal & Vertical Thickness Pattern (Figure 3)

R. Color Pattern (Figure 4)

1.5 Function Test and Alignment Procedure

1.5.1 All Modes Reset

You should do "All Mode Reset" (Refer to Chapter III-3. Hot Keys for Function Controls) first. This action will allow you to erase all end-user's settings and restore the factory defaults.

1.5.2 Auto Image Adjust

Please select and enter *"Auto Image Adjust"* function on Main Menu to see if it is workable. The *"Auto Image Adjust"* function is aimed to offer a better screen quality by built-in ASIC. For optimum screen quality, the user has to adjust each function manually.

1.5.3 Firmware

Test Pattern: Burn In Mode (Refer to Chapter III-3. Hot Keys for Function Controls)
- Make sure the F/W is the latest version.

1.5.4 DDC

Test Pattern: EDID program
- Make sure it can pass test program.

1.5.5 Fine Tune and Sharpness

Test Signal: 1280*1024@60Hz
Test Pattern: Line Moire Pattern
- Check and see if the image has noise and focus performs well. Eliminate visual line bar.
- If not, readjust by the following steps:
(a) Select and enter "**Fine Tune**" function on "**Manual Image Adjust**" to adjust the image to eliminate visual wavy noise.
(b) Then, select and enter "**Sharpnes**s" function to adjust the clarity and focus of the screen image.

1.5.6 Boundary

Test Signal: 1280*1024@60Hz
Test Pattern: Horizontal & Vertical Line Thickness Pattern
- Check and see if the image boundary is within the screen frame.
- If not, readjust by the following steps:
(a) Select and enter "**Manual Image Adjust**" function on OSD Main Menu.
(b) Then, select and enter "**Horizontal Size**" or "**Horizontal/Vertical Position**" function to adjust the video boundary to be full scanned and within screen frame.

1.5.7 White Balance

Test Signal: 640*480@60Hz
Test Pattern: White and Black Pattern

Firmware Update Procedure

1. **The monitor's firmware update for VA903m/b have two method.**

   Download the MCU IC by the fire machine. This procedure is finished in SMT.

   ISP Method. When the monitor's BIOS isn't exist or firmware isn't final program, this method Is worked by ISP Cord with monitor.

2. **VA903m/b monitor upgrade firmware by ISP Cord.**

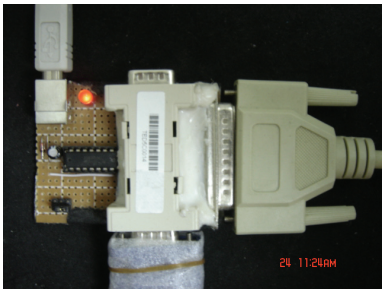
   Equipment Needed

   - USB cable for print port *1
   - VGA cable*1
   - LPT cable (25pin)*1
   - AC power cable*1
   - ISP fire cord (the fixture is made in TE) for firmware upgrade*1
   - Power adapter for firmware upgrade (this adapter is made in TE)*1
   - A computer with Windows XP
   - VA903m/b monitor (no firmware)
   - a additional monitor for system display
   - ISP & ISP3.0program

NOTE:
The fixtures for firmware upgrade provide two different methods to fire. Please check you monitor's Main board, refer to MCU-RSIC type and choose the method.
Below form appear the relation between the method and the MCU-RSIC type

METHOD	MCU	ASIC	JUMPER
A	MYSON	M-STAR & NOVATEK	PIN2-3 CLOSED
B	OTHER	REALTEK	PIN1-2 CLOSED

TEST PC



Fixture ISP_CORD

Fixture POWER_ADAPTER

LPT Cable

AC power Cable

VGA Cable

USB FOR PRINT

2.2. **Setup Procedure**

2.2.1 Connect PO1 of ISP fixture with print port of computer by LPT cable

2.2.2 Connect PO2 of ISP fixture with USB port of computer by USB cable

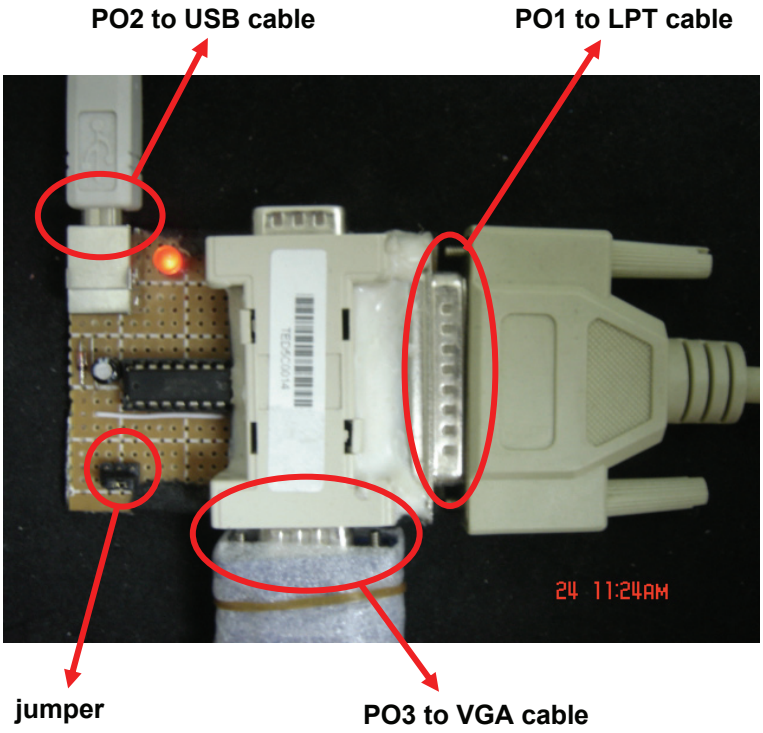
2.2.3 Connect PO3 of ISP fixture with monitor VGA port by VGA cable

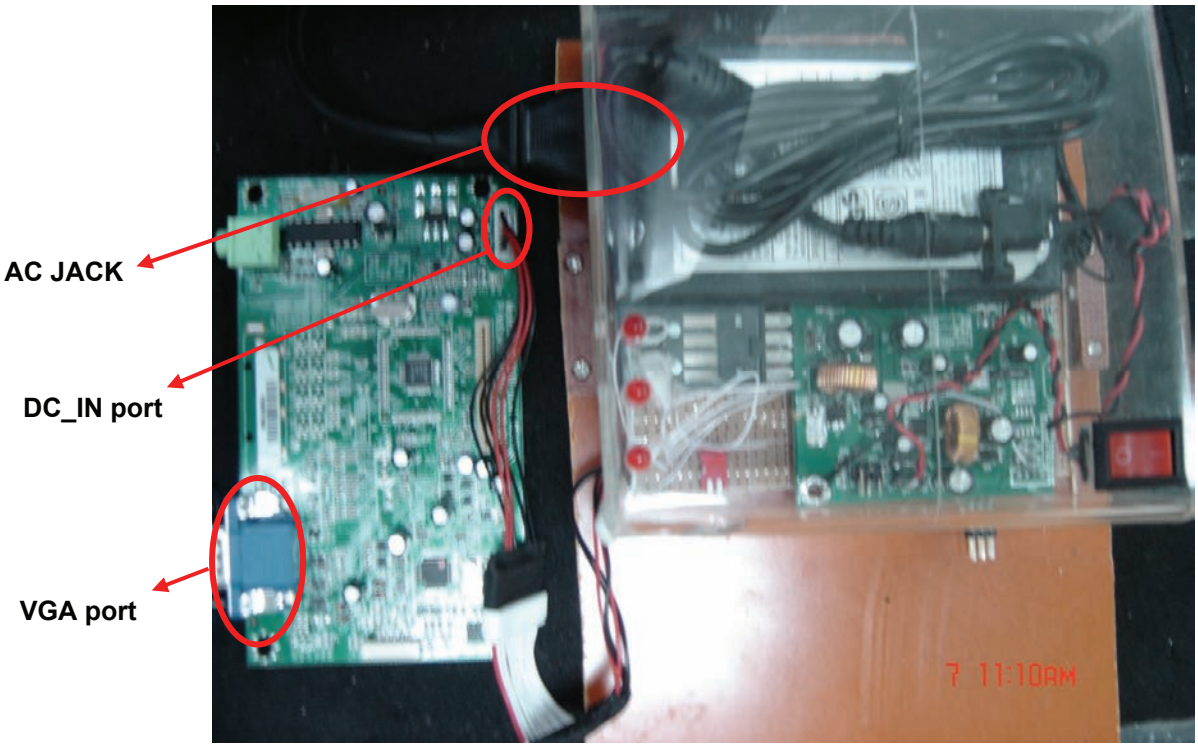
2.2.4 Connect mouse, keyboard, AC power, monitor with computer

2.2.5 Plug AC cable in power adapter AC jack

2.2.6 Connect power adapter DC_OUTPUT port to main board DC_IN port

2.2.7 Connect PO3 of ISP fixture with VGA port of monitor's main board by VGA cable

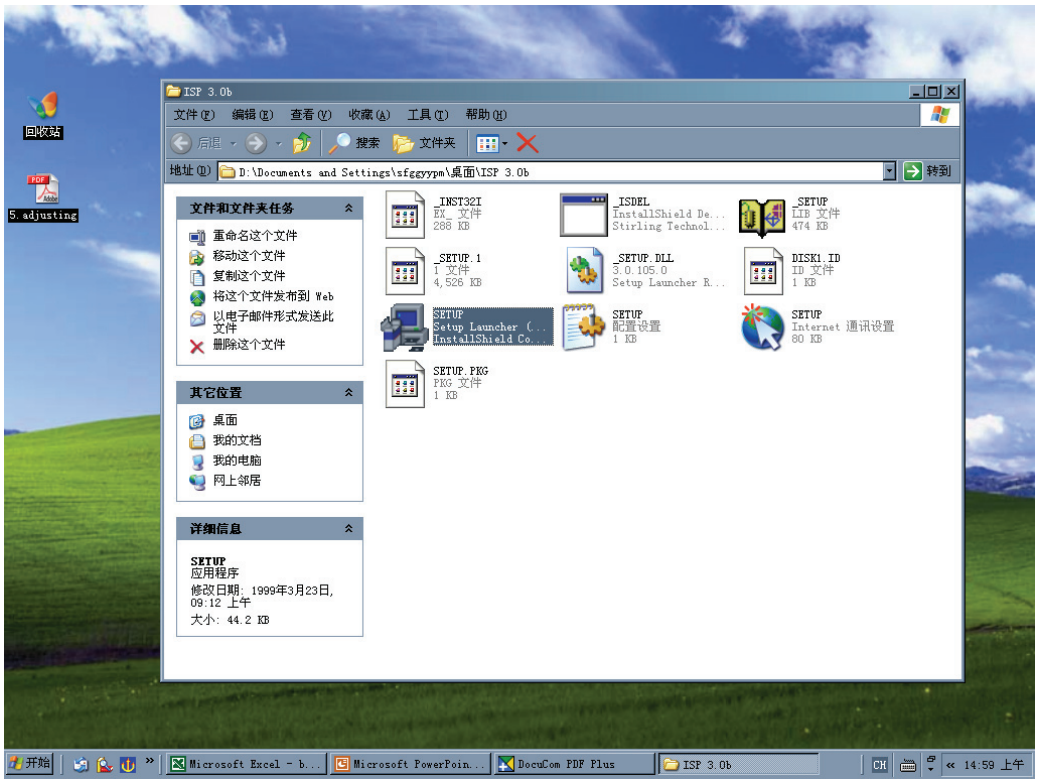


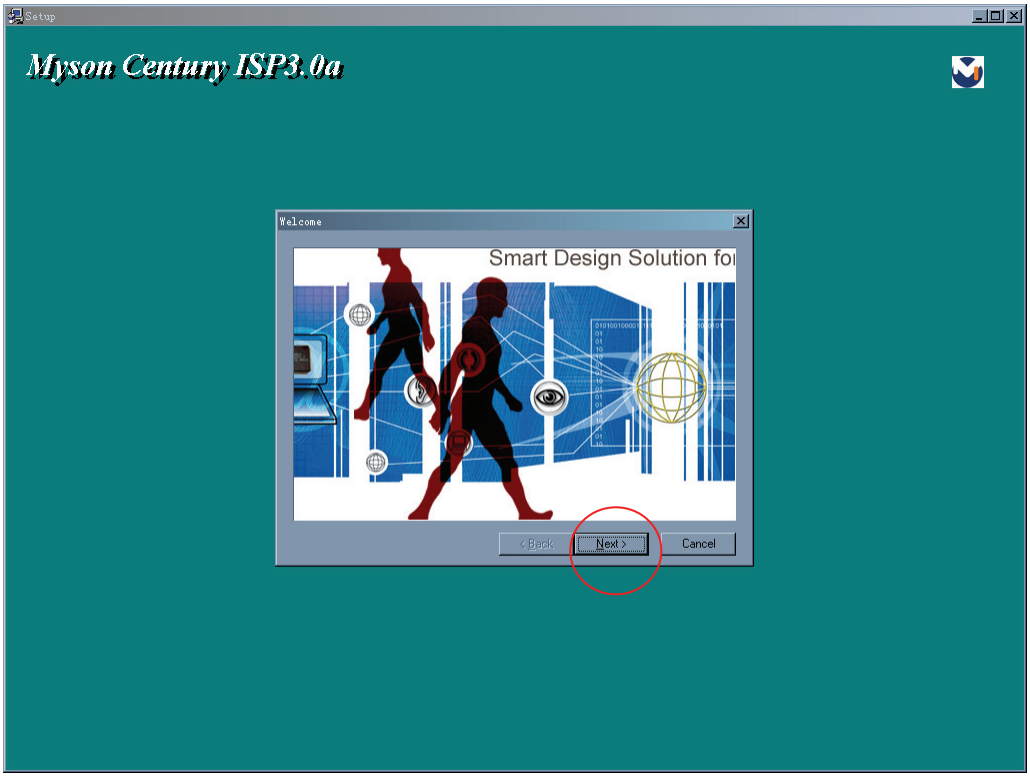


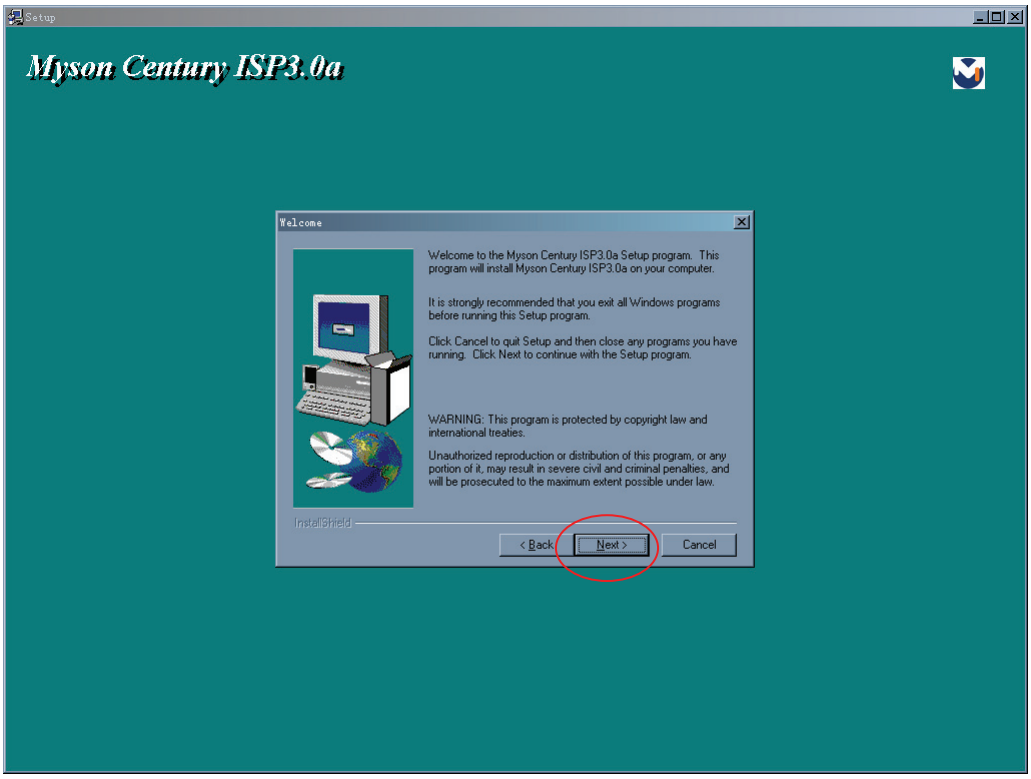
NOTE:
Do STEP2.2.6 and STEP2.2.7 for monitor's main board only. Monitor firmware upgrade will jump this step.

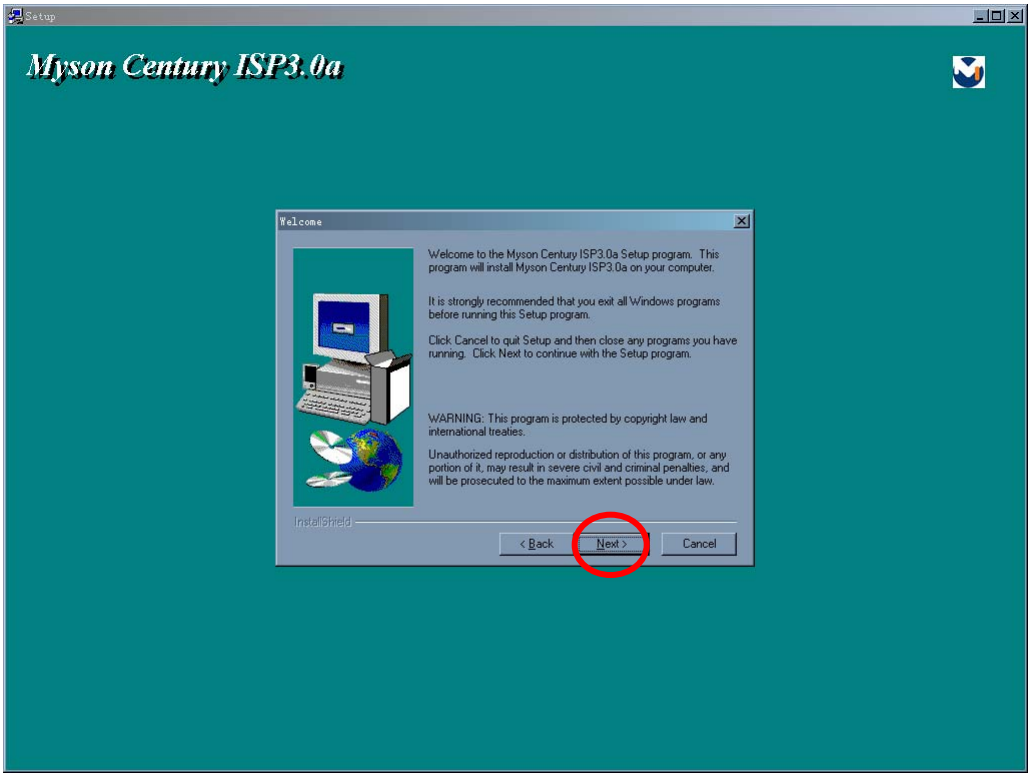
2.3. **Soft install**

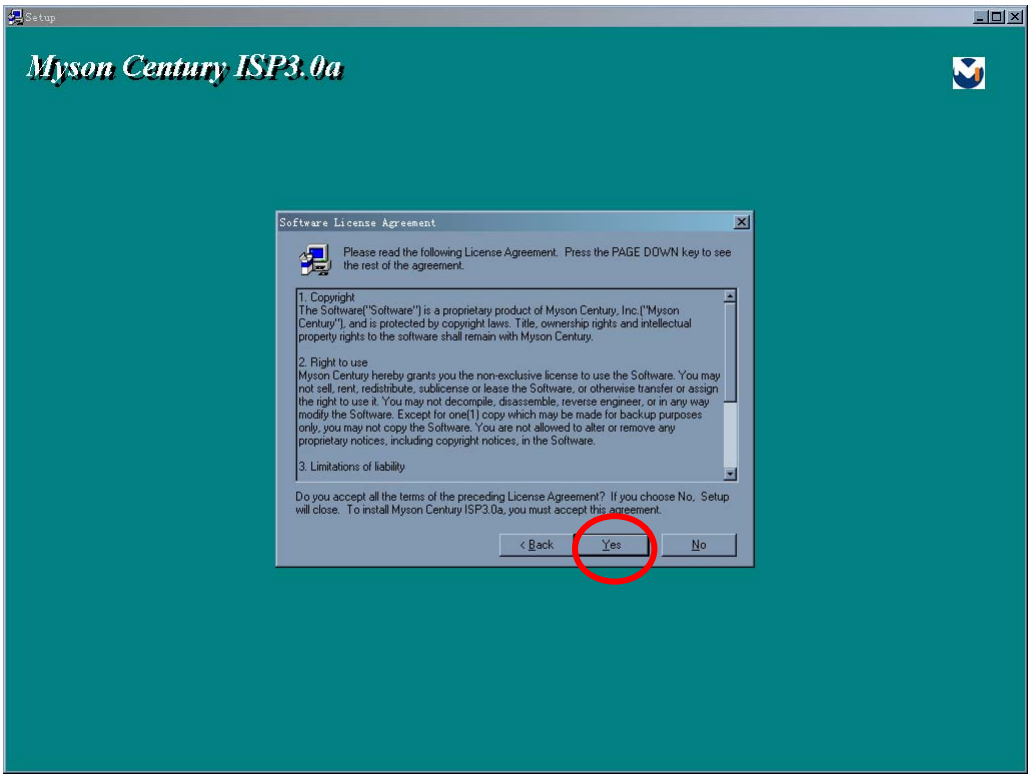
Install ISP3.0 program by selecting and clicking "…\isp3.0\setup.exe", press "YES" or "NEXT" buttons until setup is complete.



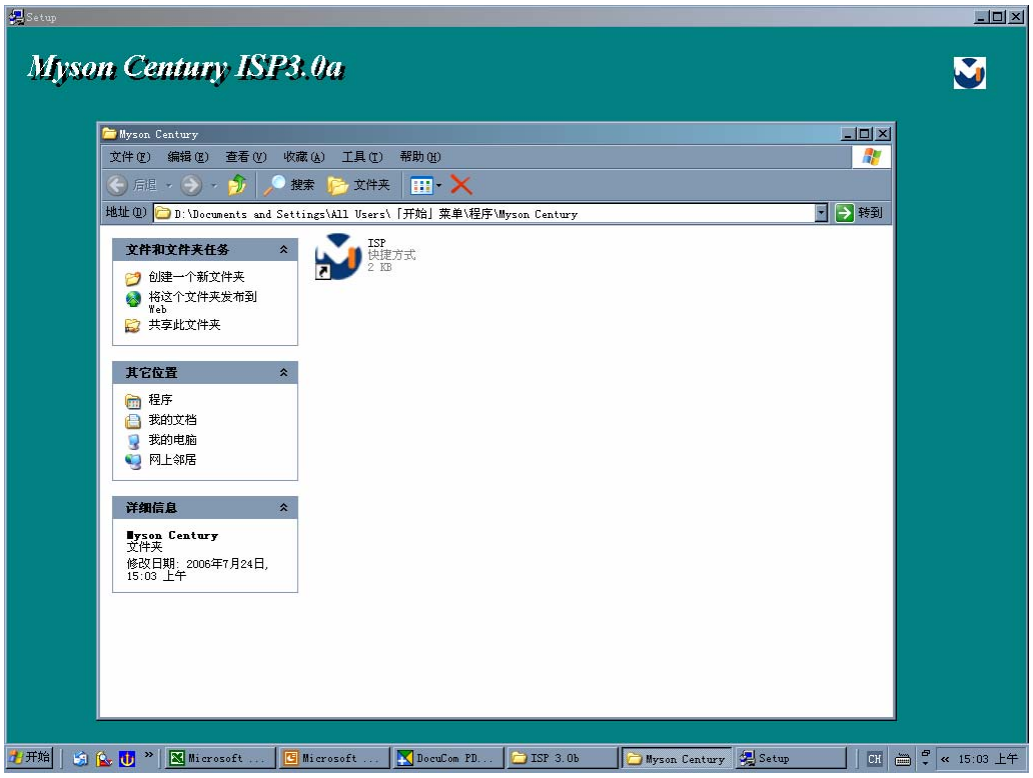

Setup
Myson Century ISP3.0a
Welcome
Smart Design Solution fo
< Back
Next >
Cancel


Setup
Myson Century ISP3.0a
Welcome
Welcome to the Myson Century ISP3.0a Setup program. This program will install Myson Century ISP3.0a on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
InstallShield
< Back
Next >
Cancel

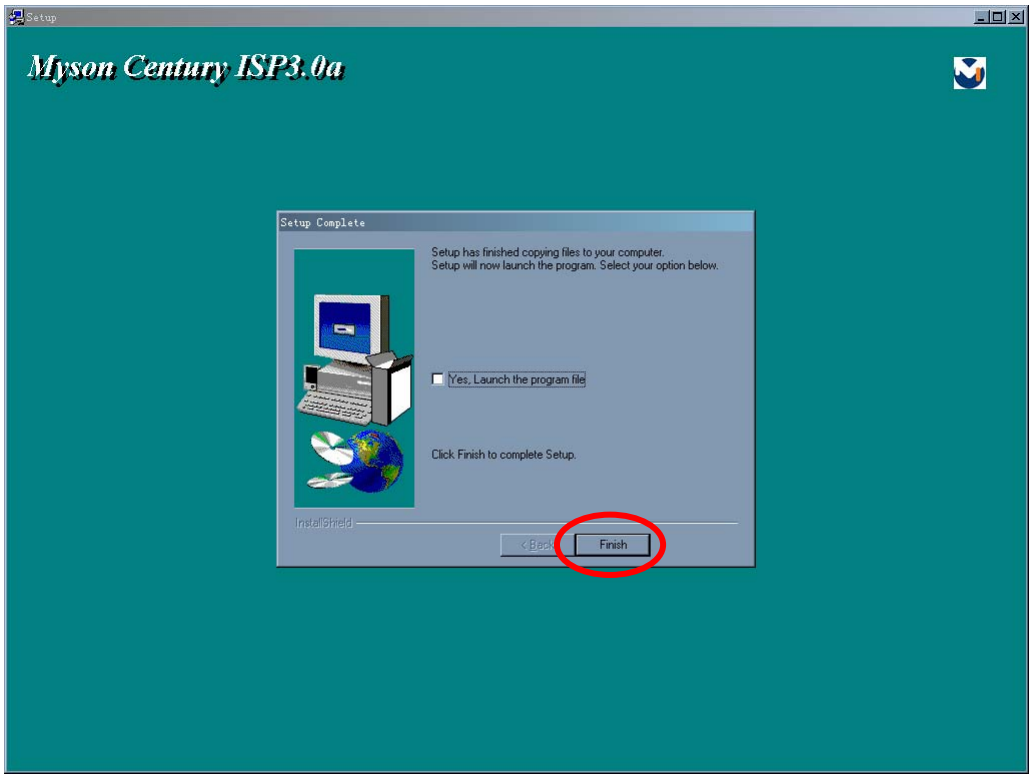

Setup
Myson Century ISP3.0a
Welcome
Welcome to the Myson Century ISP3.0a Setup program. This program will install Myson Century ISP3.0a on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
InstallShield
< Back
Next >
Cancel


Setup
Myson Century ISP3.0a
Software License Agreement
Please read the following License Agreement. Press the PAGE DOWN key to see the rest of the agreement.
1. Copyright
The Software("Software") is a proprietary product of Myson Century, Inc.("Myson Century"), and is protected by copyright laws. Title, ownership rights and intellectual property rights to the software shall remain with Myson Century.
2. Right to use
Myson Century hereby grants you the non-exclusive license to use the Software. You may not sell, rent, redistribute, sublicense or lease the Software, or otherwise transfer or assign the right to use it. You may not decompile, disassemble, reverse engineer, or in any way modify the Software. Except for one(1) copy which may be made for backup purposes only, you may not copy the Software. You are not allowed to alter or remove any proprietary notices, including copyright notices, in the Software.
3. Limitations of liability
Do you accept all the terms of the preceding License Agreement? If you choose No, Setup will close. To install Myson Century ISP3.0a, you must accept this agreement.
< Back
Yes
No

Installation will create a icon for ISP application in “START MENU”\PROGRAM

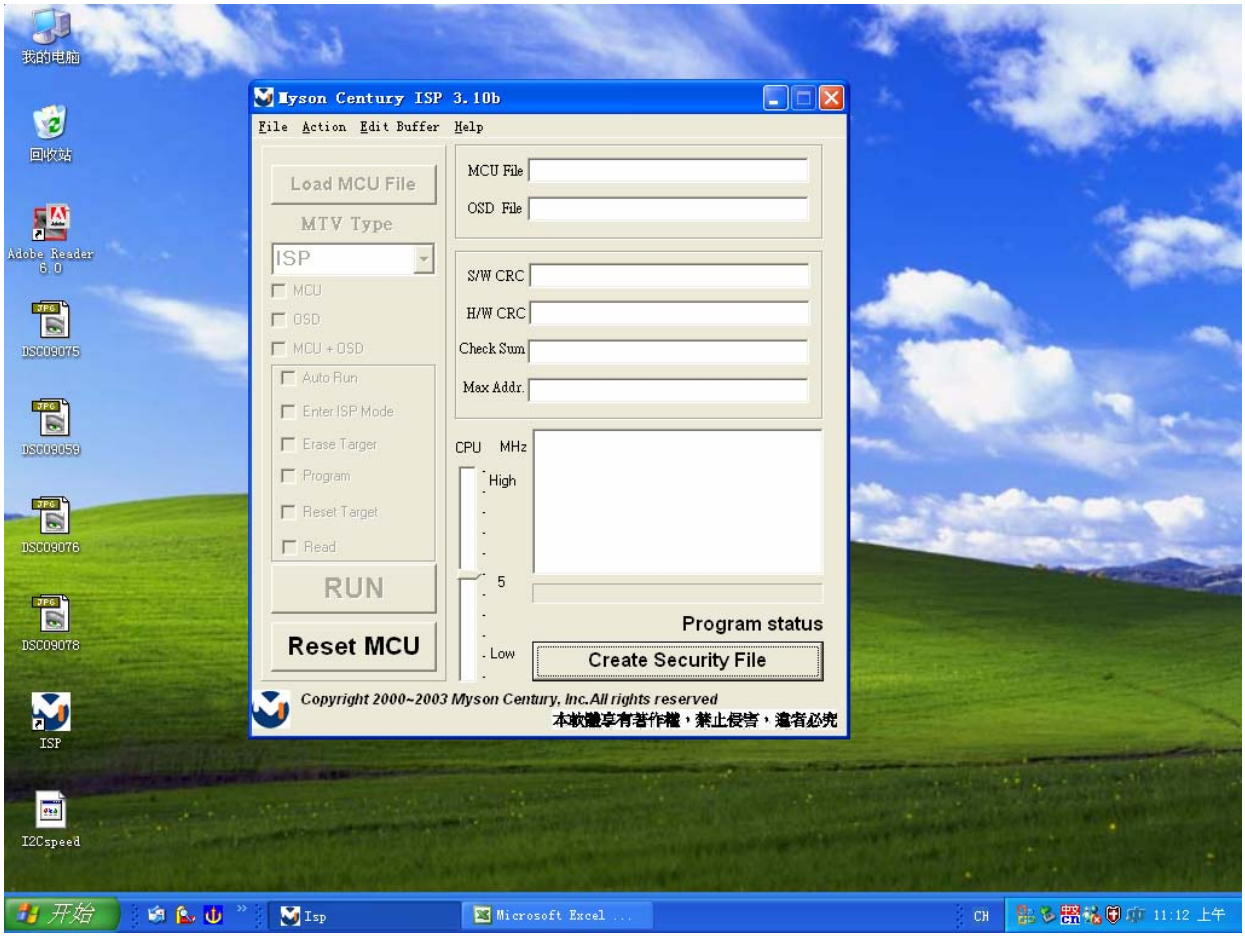


Press “finish” button exit setup



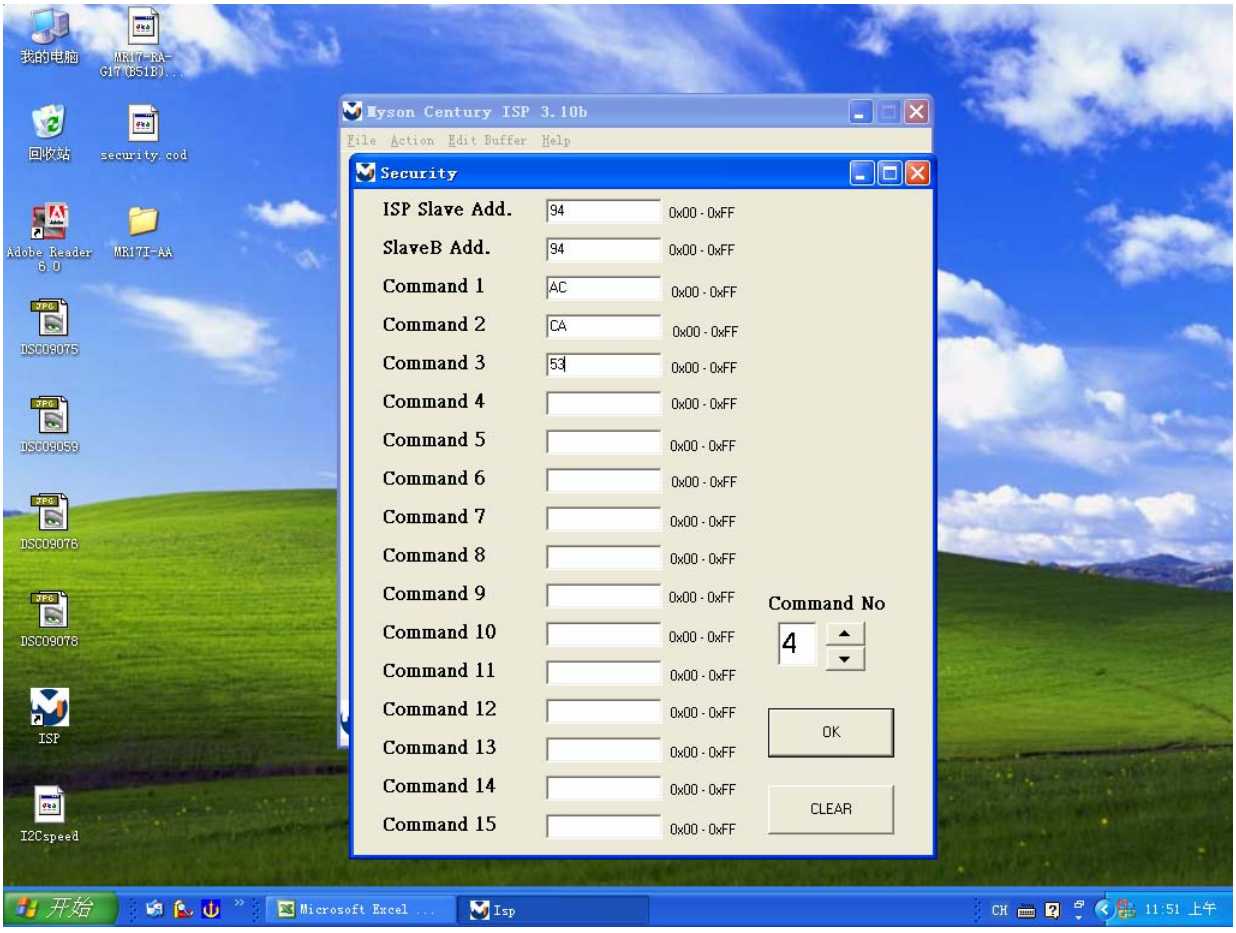
STEP1: Choose the DCC written Program

set up the DCC written fixture ,check whether the connection between main board is in well condition ,see attached file 1.1&1.2 per the product model ,choose the corresponding Model, DCC written process, the model mr171-AAA should apply the SIP Program

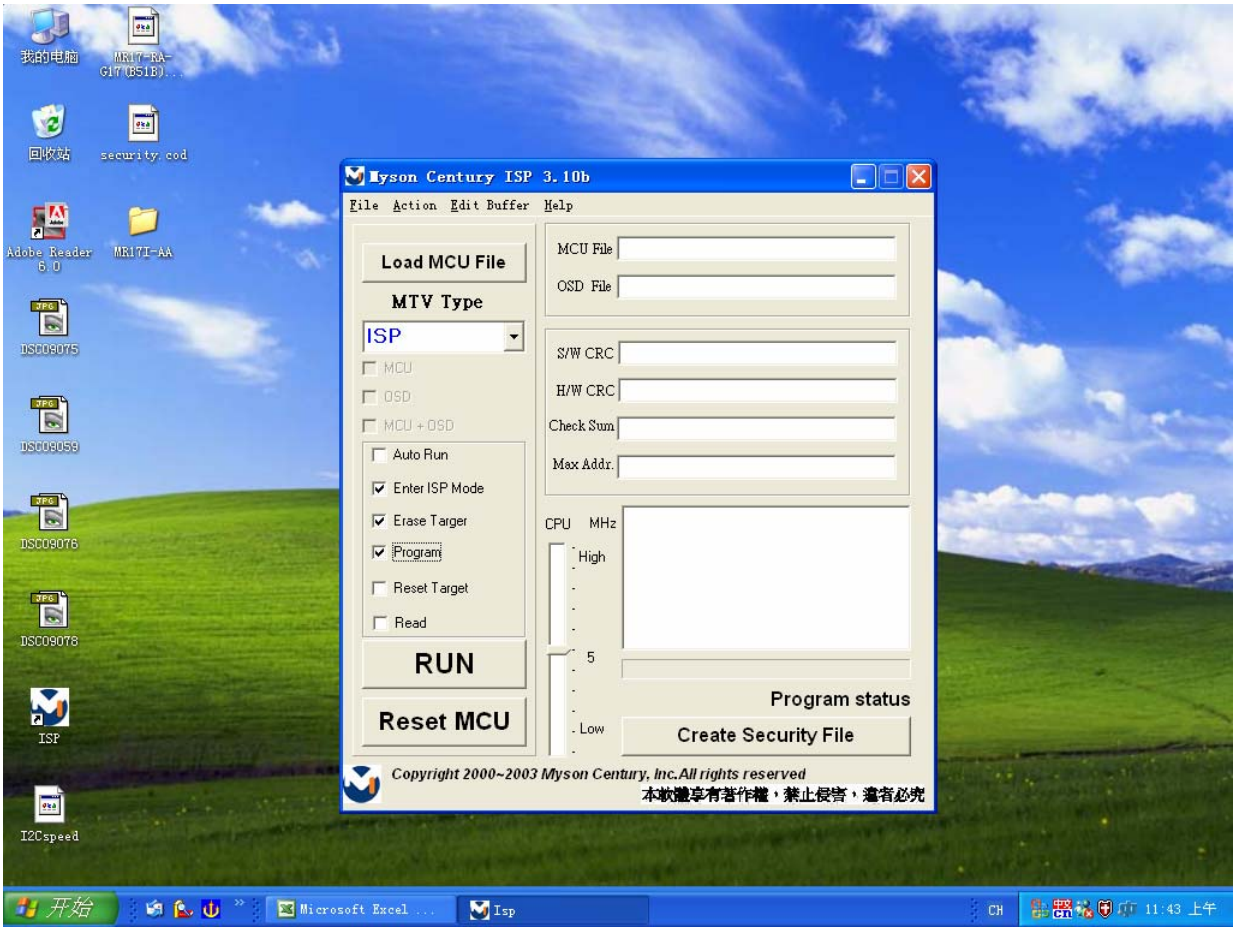


STEP2: Creat security file

Choose the Tab "create Security File " to enter next Dialogue Item

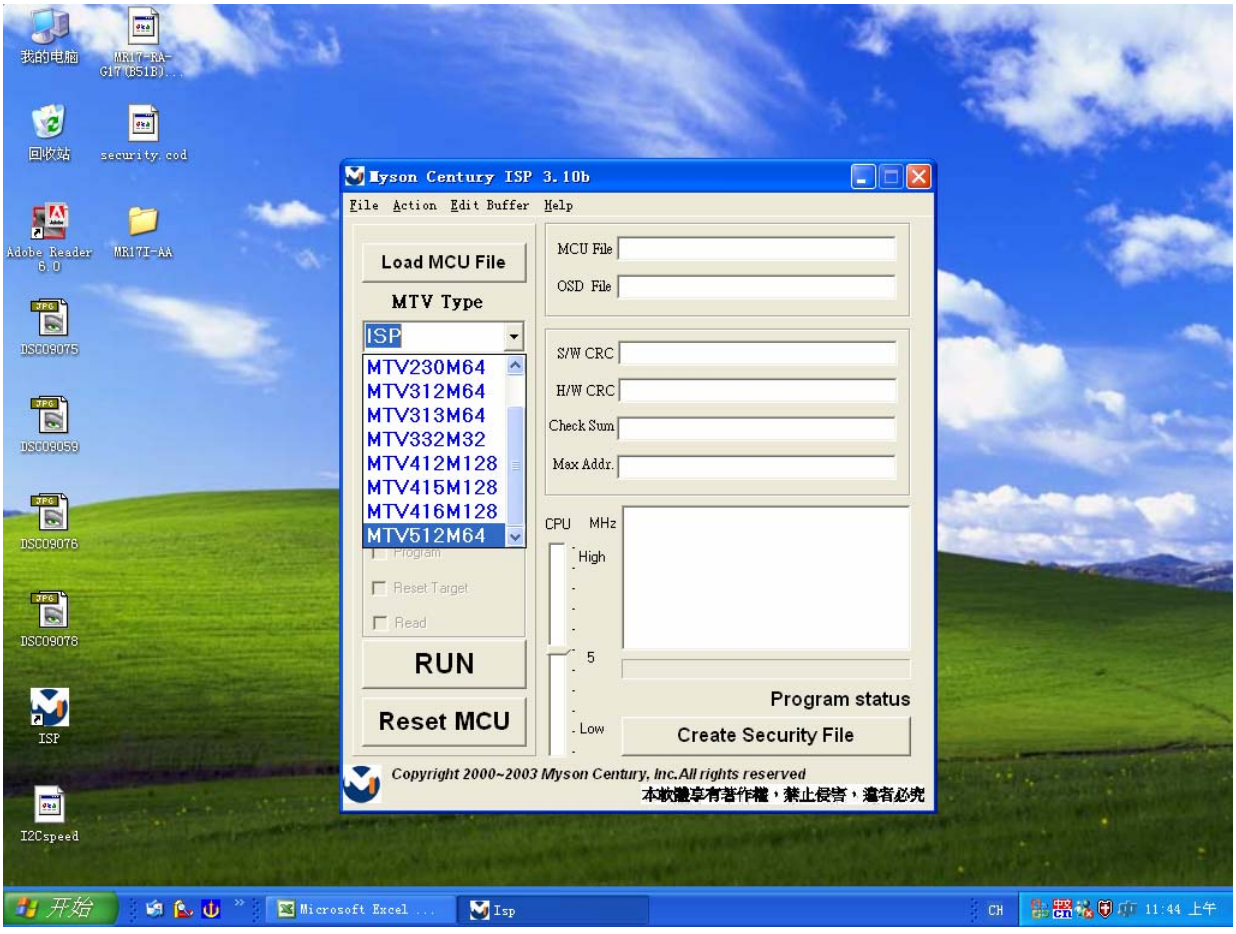

Myson Century ISP 3.10b
File Action Edit Buffer Help
Security
ISP Slave Add. 94 0x00 - 0xFF
SlaveB Add. 94 0x00 - 0xFF
Command 1 AC 0x00 - 0xFF
Command 2 CA 0x00 - 0xFF
Command 3 53 0x00 - 0xFF
Command 4 0x00 - 0xFF
Command 5 0x00 - 0xFF
Command 6 0x00 - 0xFF
Command 7 0x00 - 0xFF
Command 8 0x00 - 0xFF
Command 9 0x00 - 0xFF
Command 10 0x00 - 0xFF
Command 11 0x00 - 0xFF
Command 12 0x00 - 0xFF
Command 13 0x00 - 0xFF
Command 14 0x00 - 0xFF
Command 15 0x00 - 0xFF
Command No
4
OK
CLEAR

STEP3: Input the related parameter, save them and take up the next step



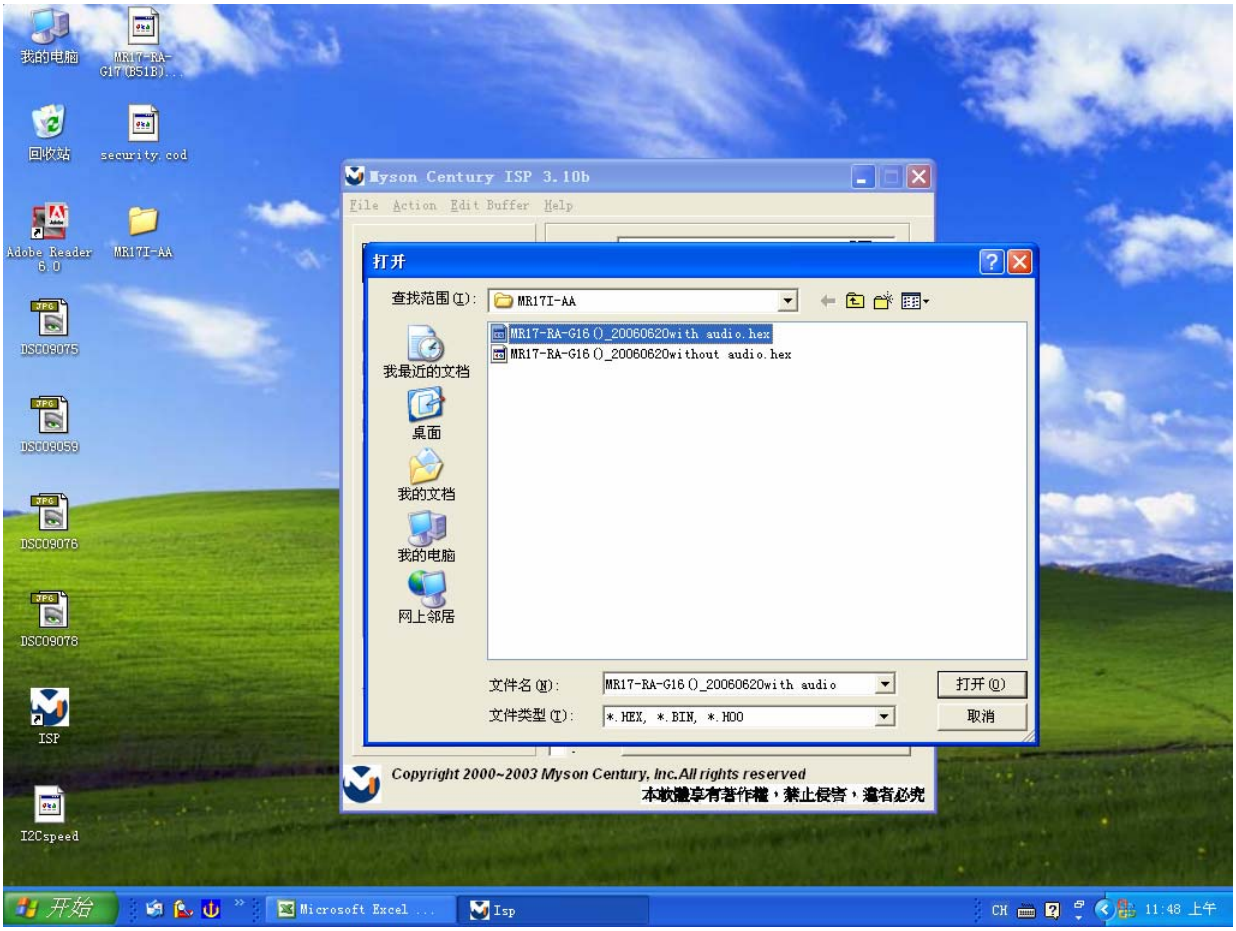
STEP4: Choose the Tab MTV TYPE

Choose the MTV512M64 from the TAB ISP ITEMS



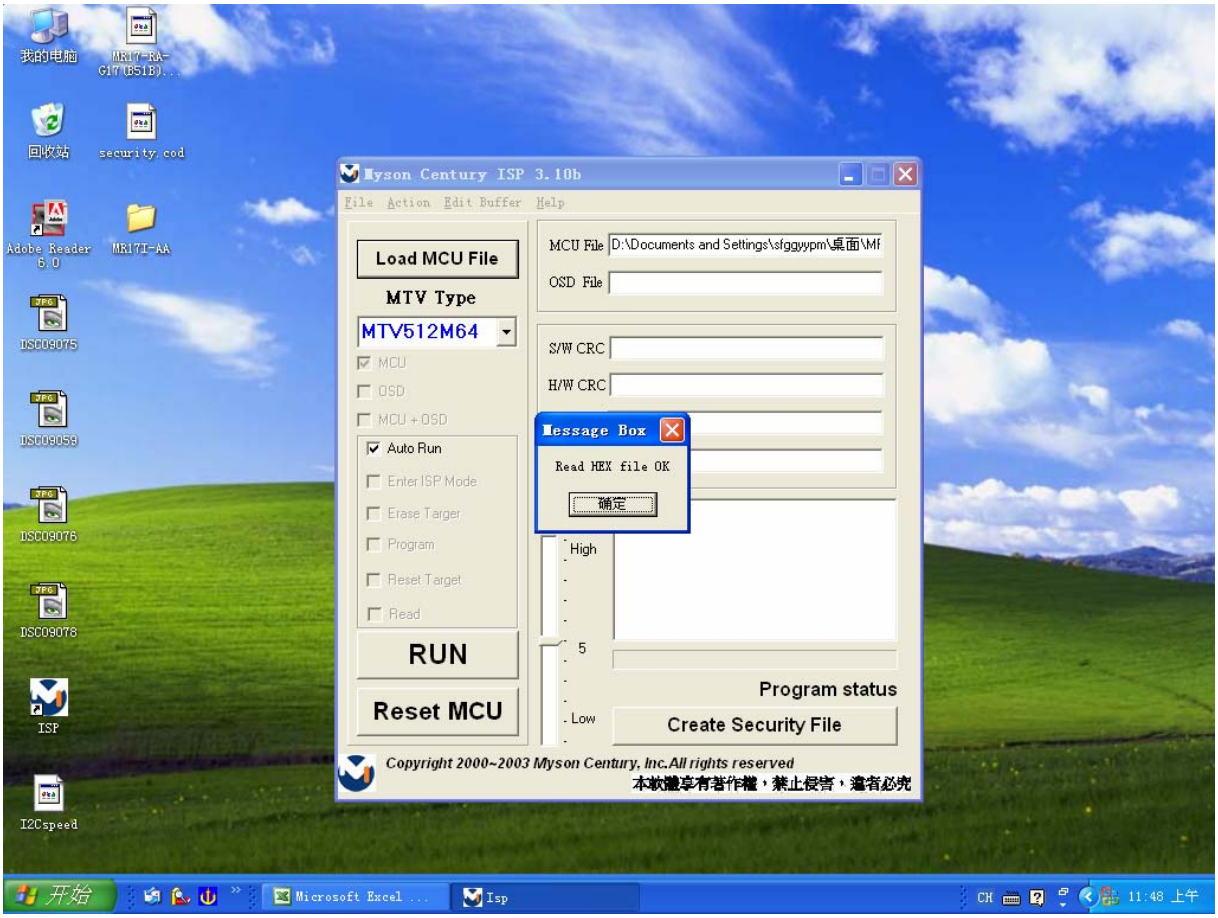
DCC Written model Diagram Table as below

STEP5: DCC WRITTEN methods

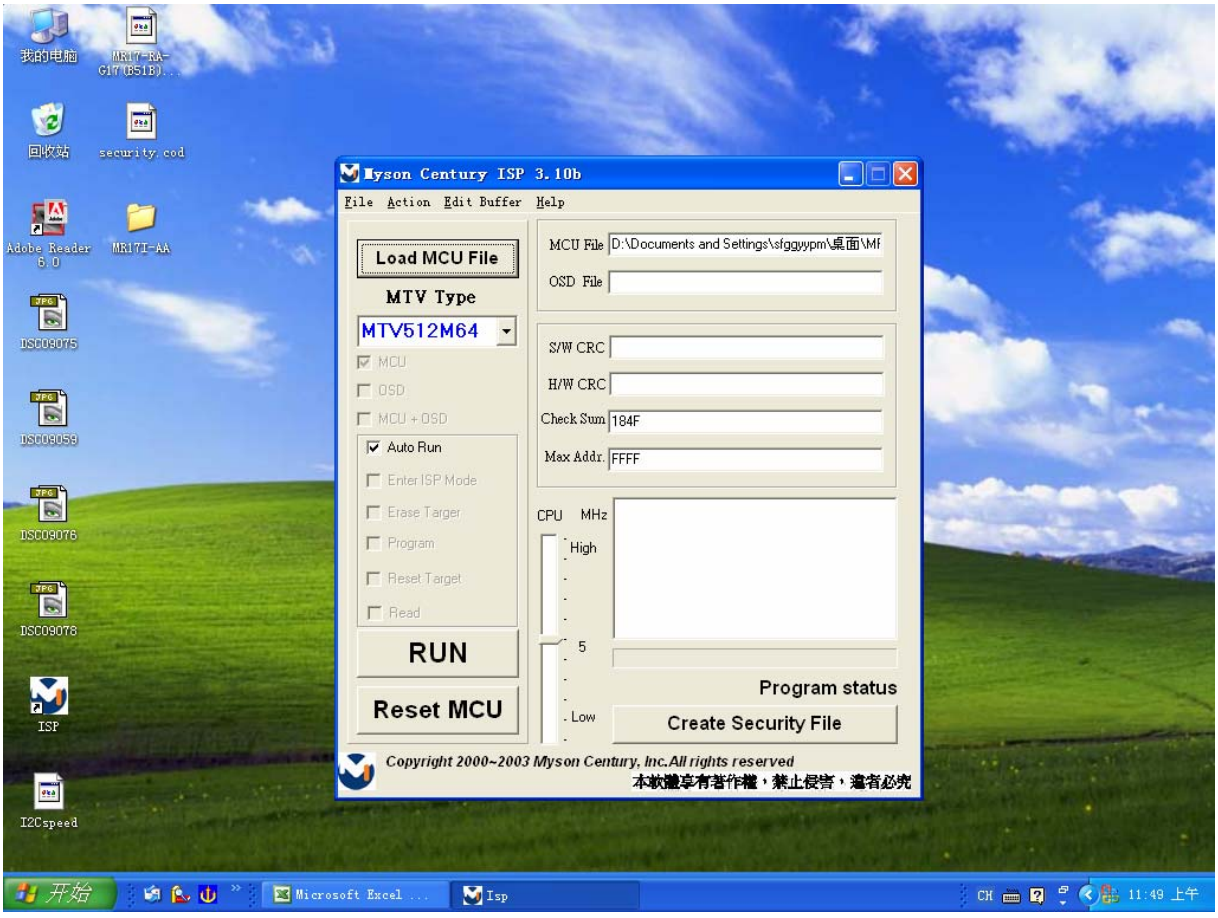


SETP6: Choose the DDC Written BIOS document

Choose the Tab LOAD MCU FILE，Looking up the related BIOS document in my Computer ,and Point the confirm Tab

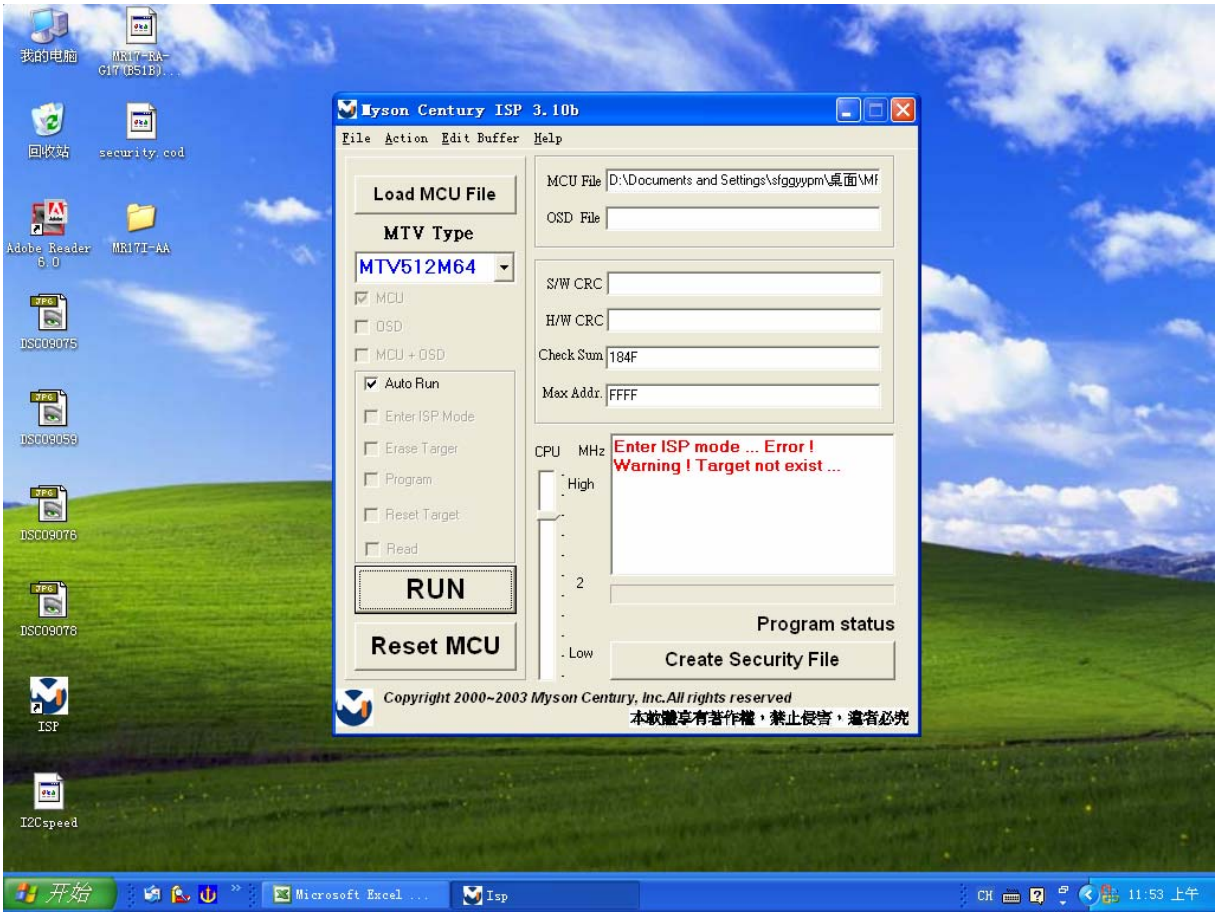


when the BIOS Documents' loading is successful ,you can find the picture as above

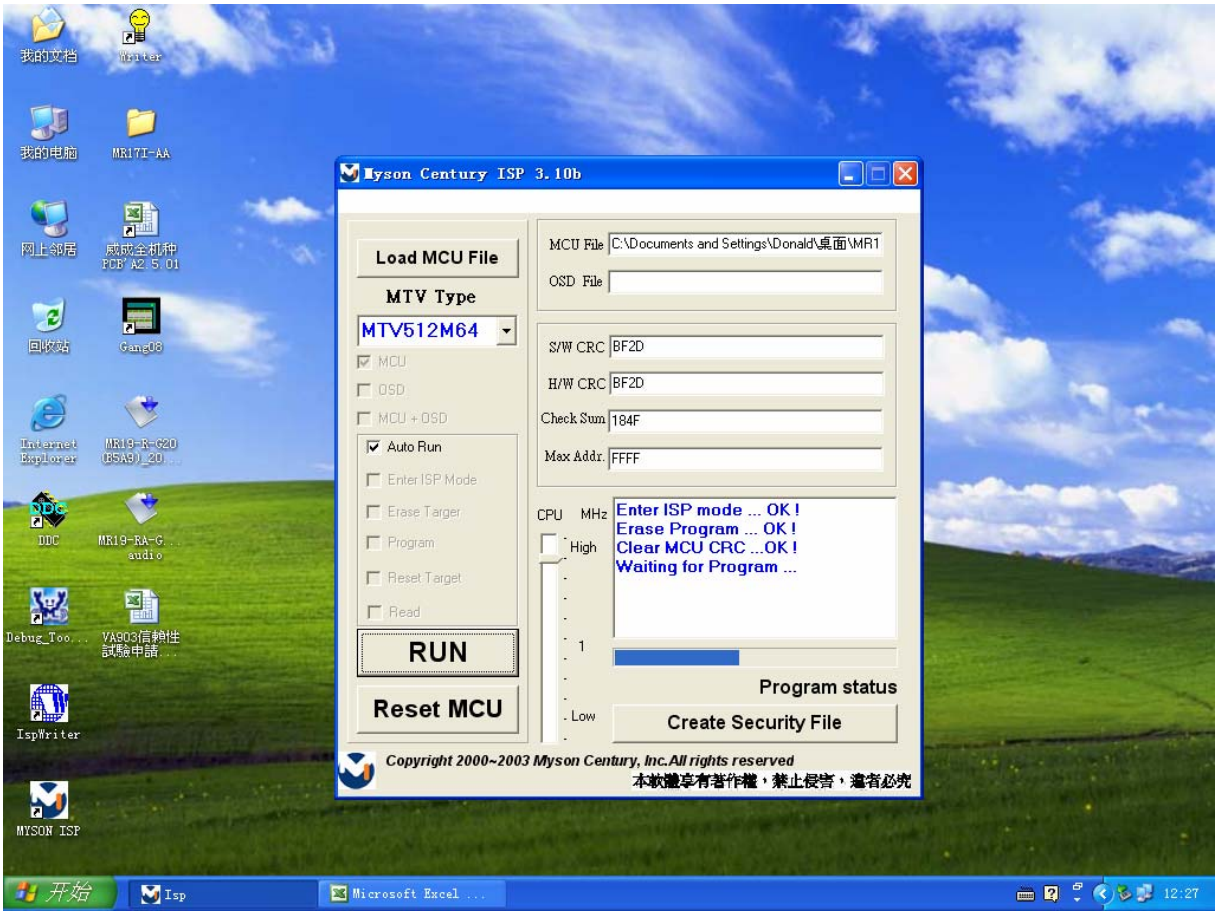


Step 7.Confirm the BIOS'S check sum

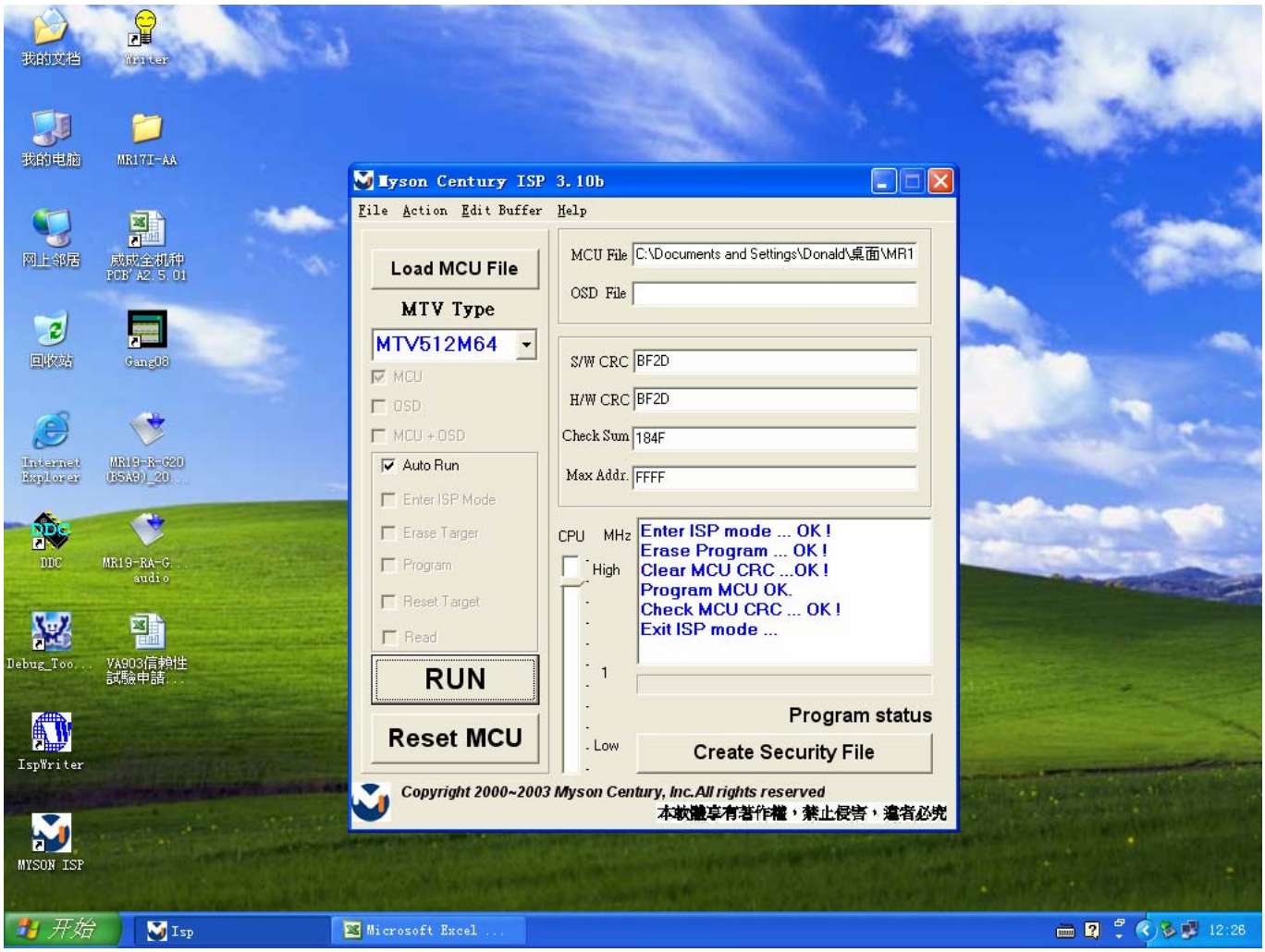
In the above attached Display picture ,you should check whether the check sum's Data comply to the bios' DCC written, if there is no problem ,pls press the run menu to write



If showed the picture as above pls check whether the DDC write fixture is well Connected with PC the power board is power on and the program's setup is all right



The normal program is writing



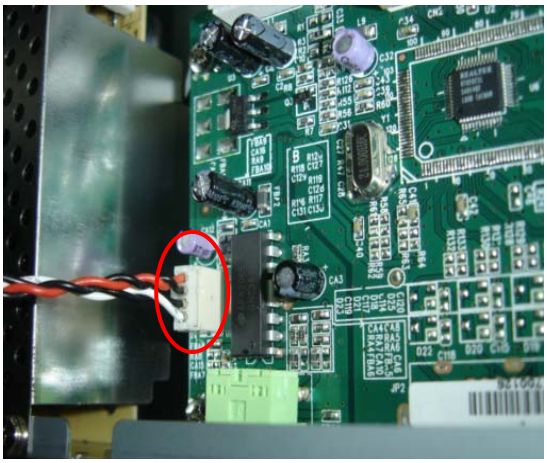
The program has finished writing

Disassembly Procedure

1. Remove the hinge cover

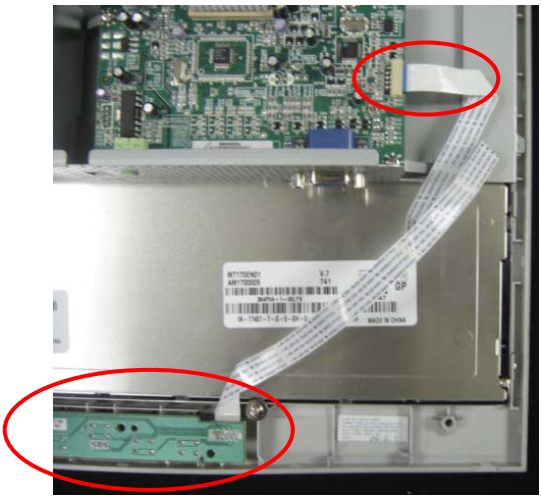
2. Unscrew the back cover's screw

3. open the back cover ,pull out the speaker wire

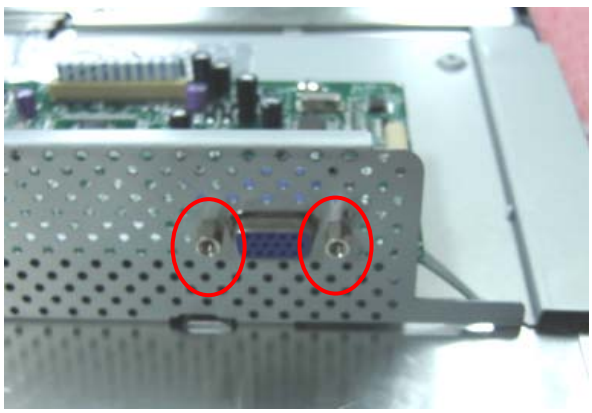


4. Tear off the aluminum foil where fix up the light

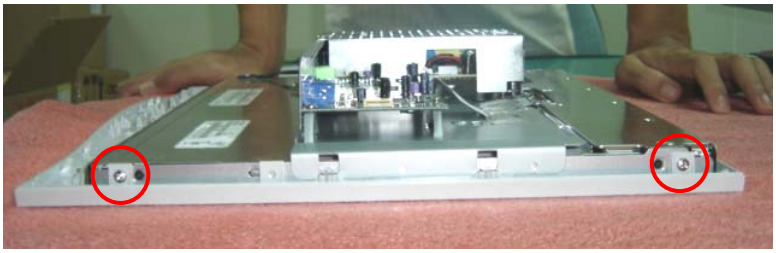
5. Tear off the aluminum foil where cover the FFC cable,take out the key board from bezel ,pull out FFC cable from the main board;



6. pull out the two pcs screw form the main board

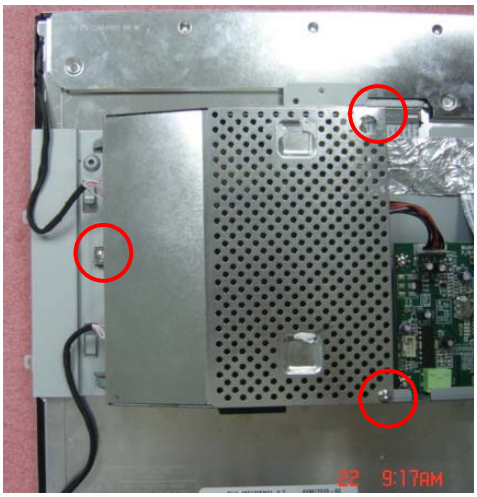


7. pull out the two screws where lie in the two sides of the frame

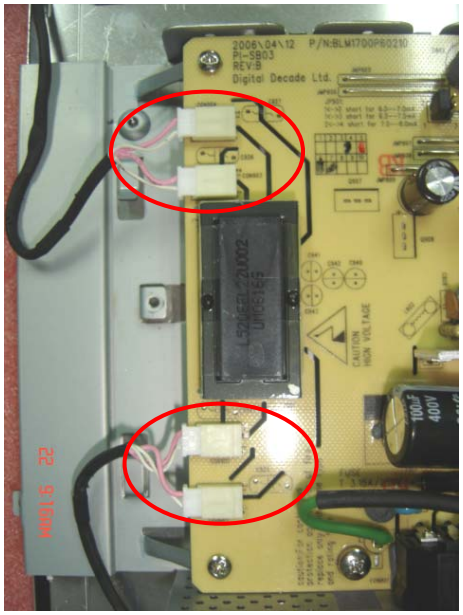


8. pull out the screws which fix up the bezel and then take out the bezel

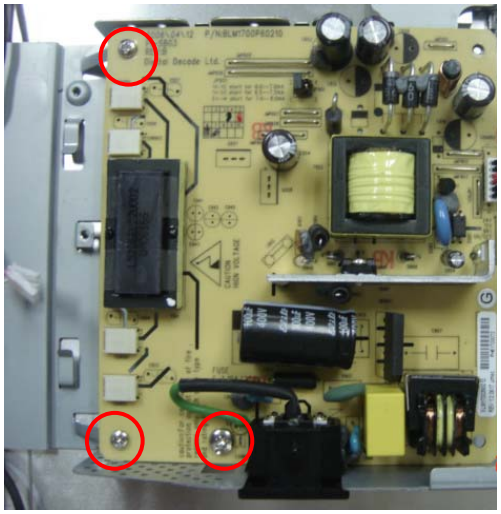
9. Take out the screw which covers the shield

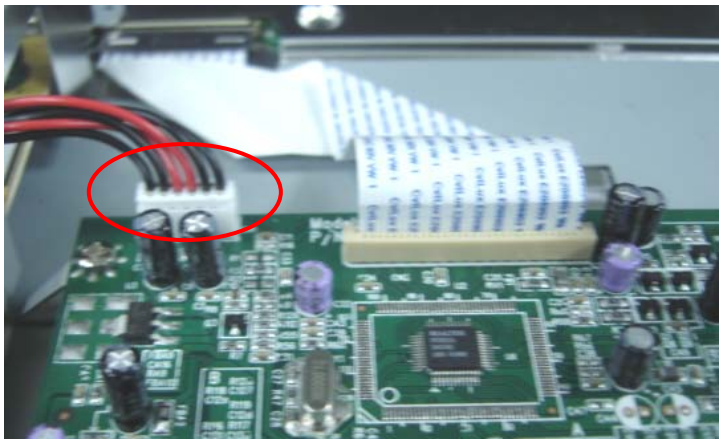


10. pull out the lamp wire material

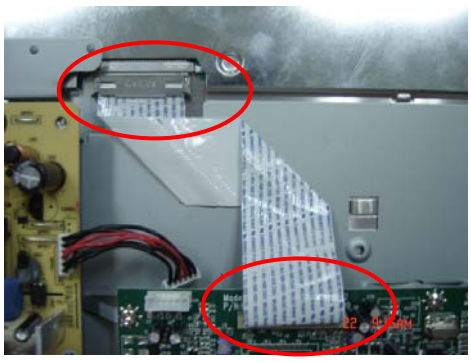


11. take out the screw form the power board ,pull out the power boards' connecter wire

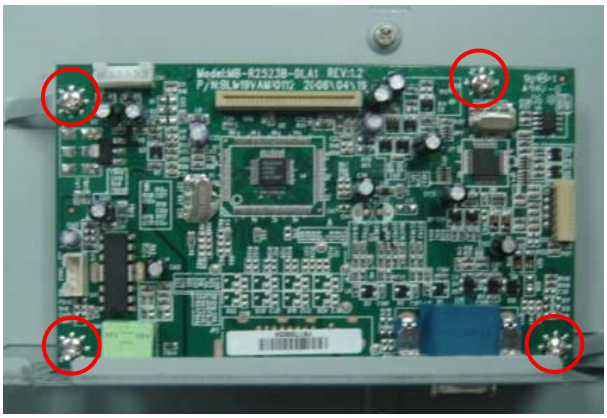




12. take out the FCC Cable AL where lies in the panel ,pull out the FCC cable



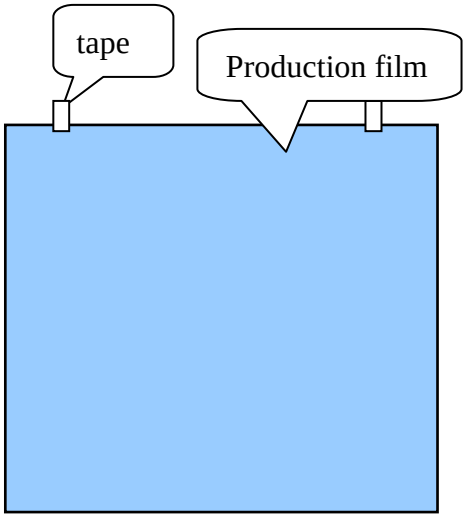
13. take out the main board's screw



14. Remove the fame down towards

Packing Procedure

1.1 Paste production film to protect the monitor screen.(Figure 1)

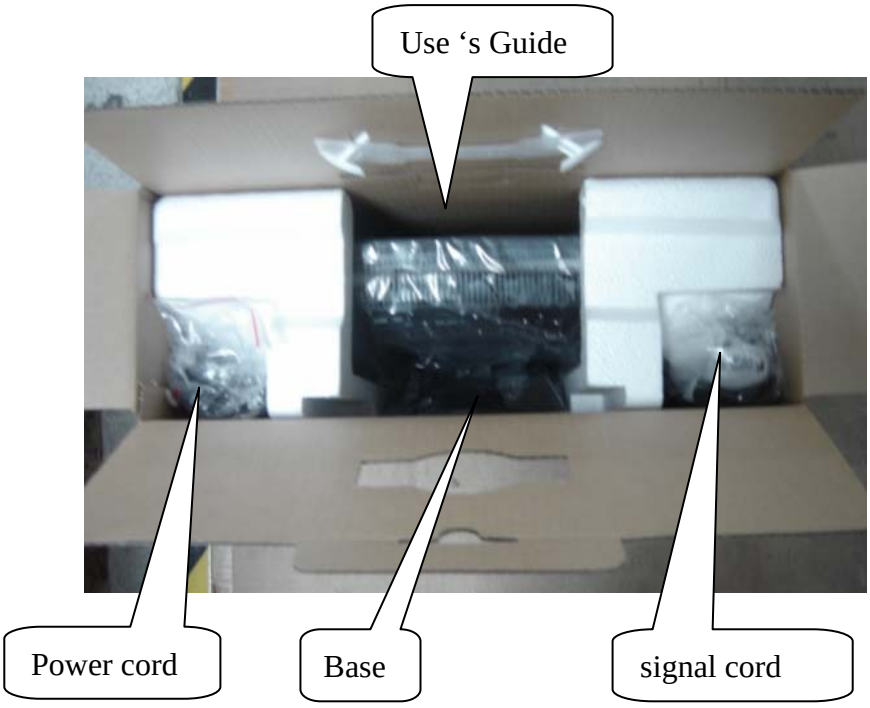


1.2 Put the monitor in the PE bag and seal bag with type (Figure 2)

1.3 Put the cushions on the monitor.(Figure 4)

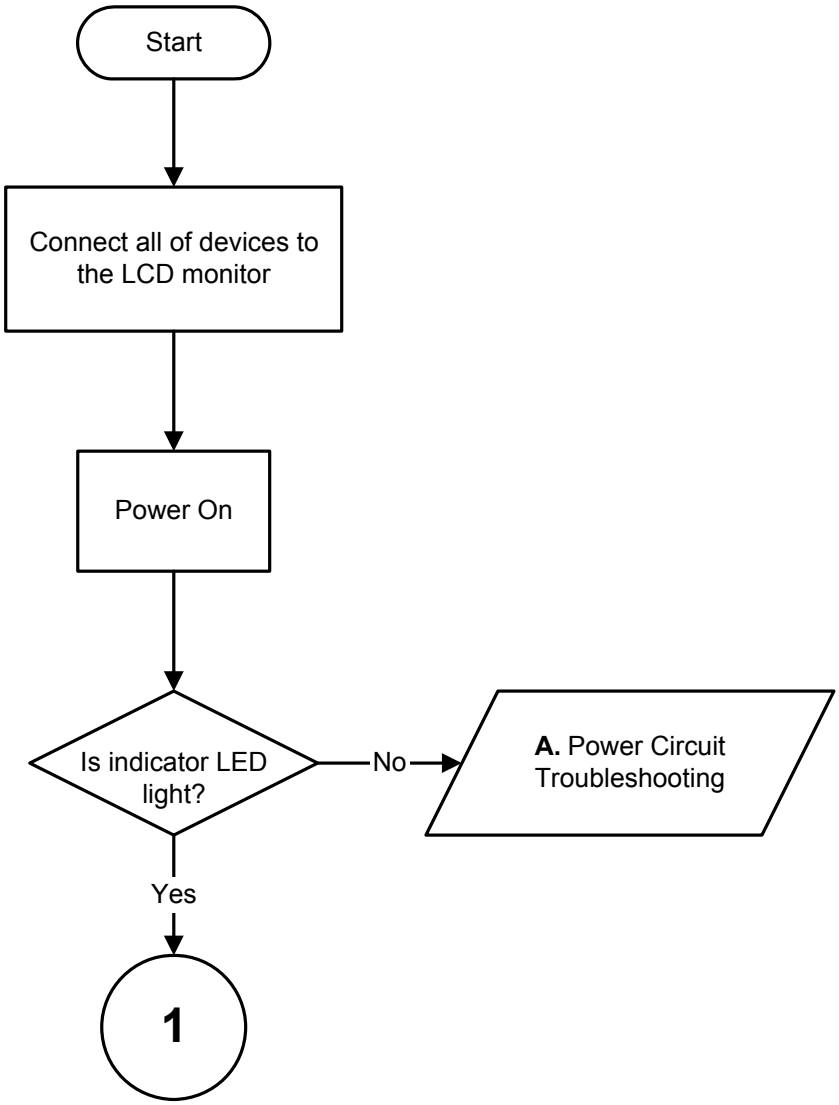
1.4 Put the base in the EPE bag. and then,place the base on the cushions ,as figure;

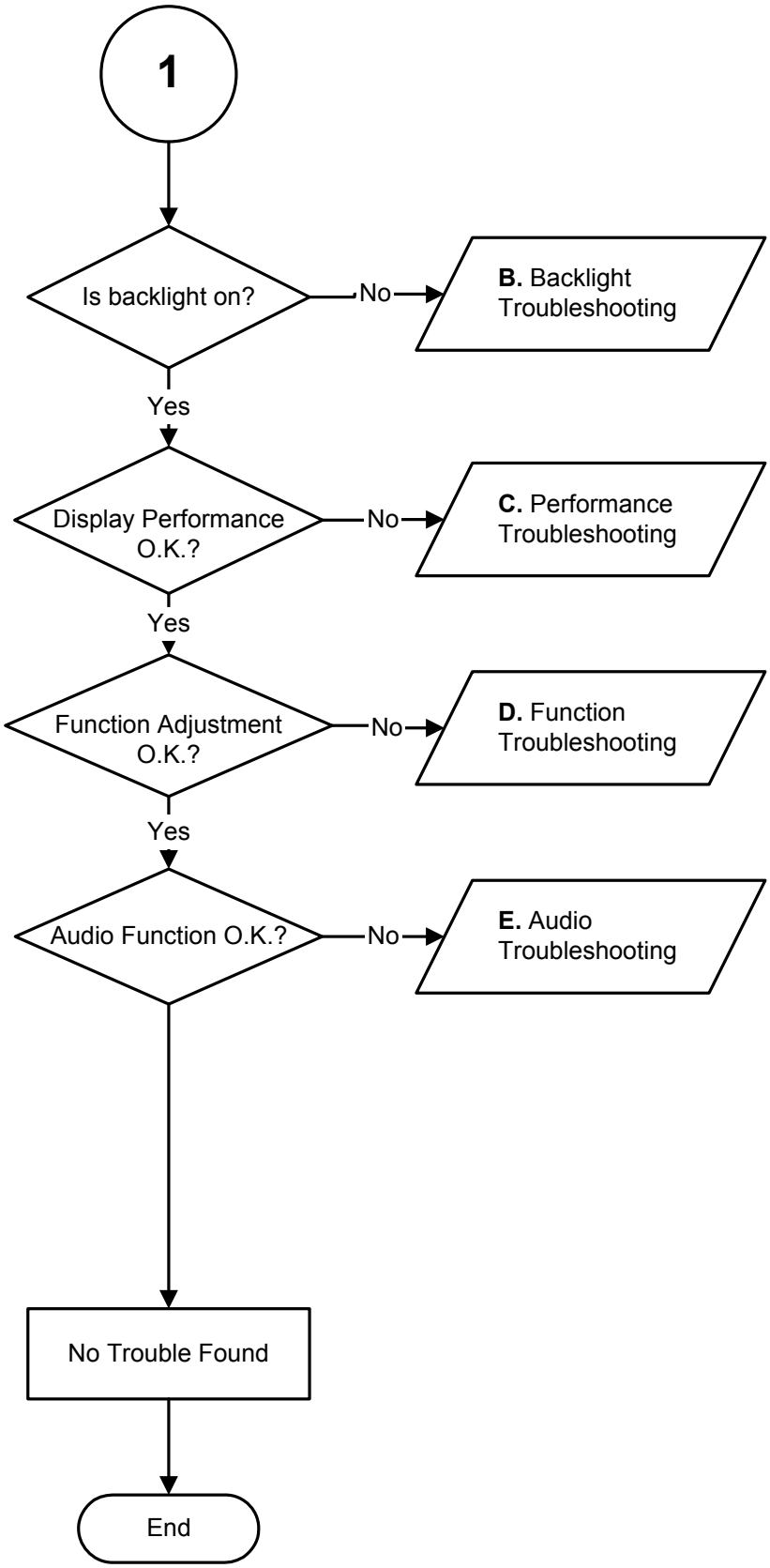
1.4.Place the monitor into the carton and then put all accessories into carton .At last,close the carton.



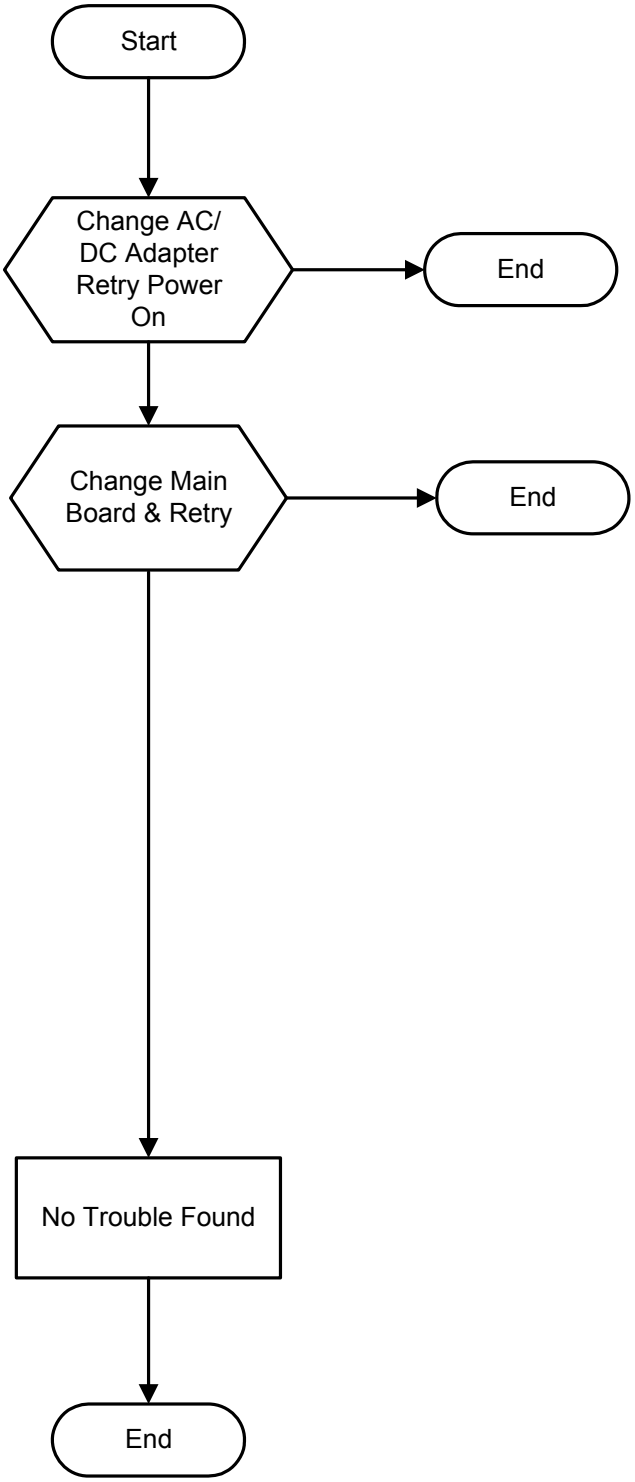
6. Troubleshooting Flow Chart

Main Procedure

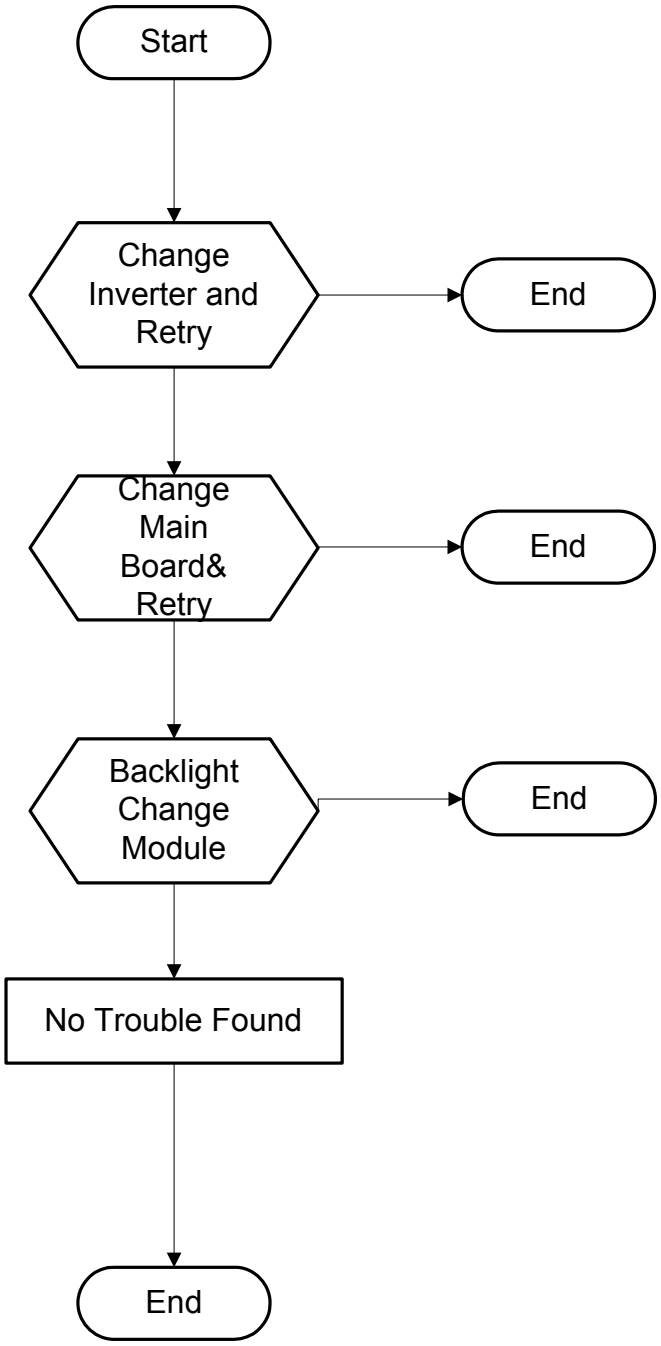



1
Is backlight on?
No
B. Backlight Troubleshooting
Yes
Display Performance O.K.?
No
C. Performance Troubleshooting
Yes
Function Adjustment O.K.?
No
D. Function Troubleshooting
Yes
Audio Function O.K.?
No
E. Audio Troubleshooting
No Trouble Found
End

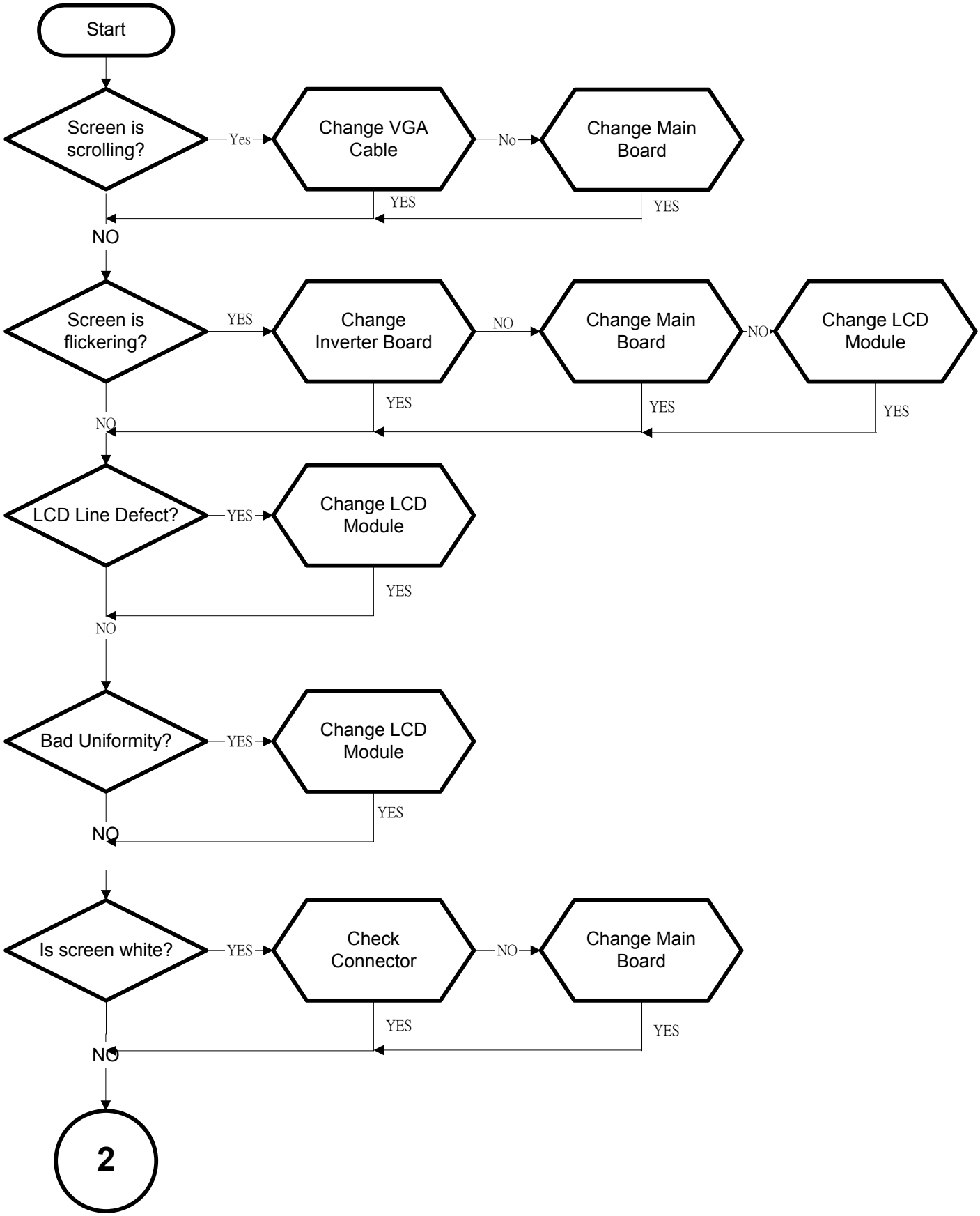
A. Power Circuit Troubleshooting

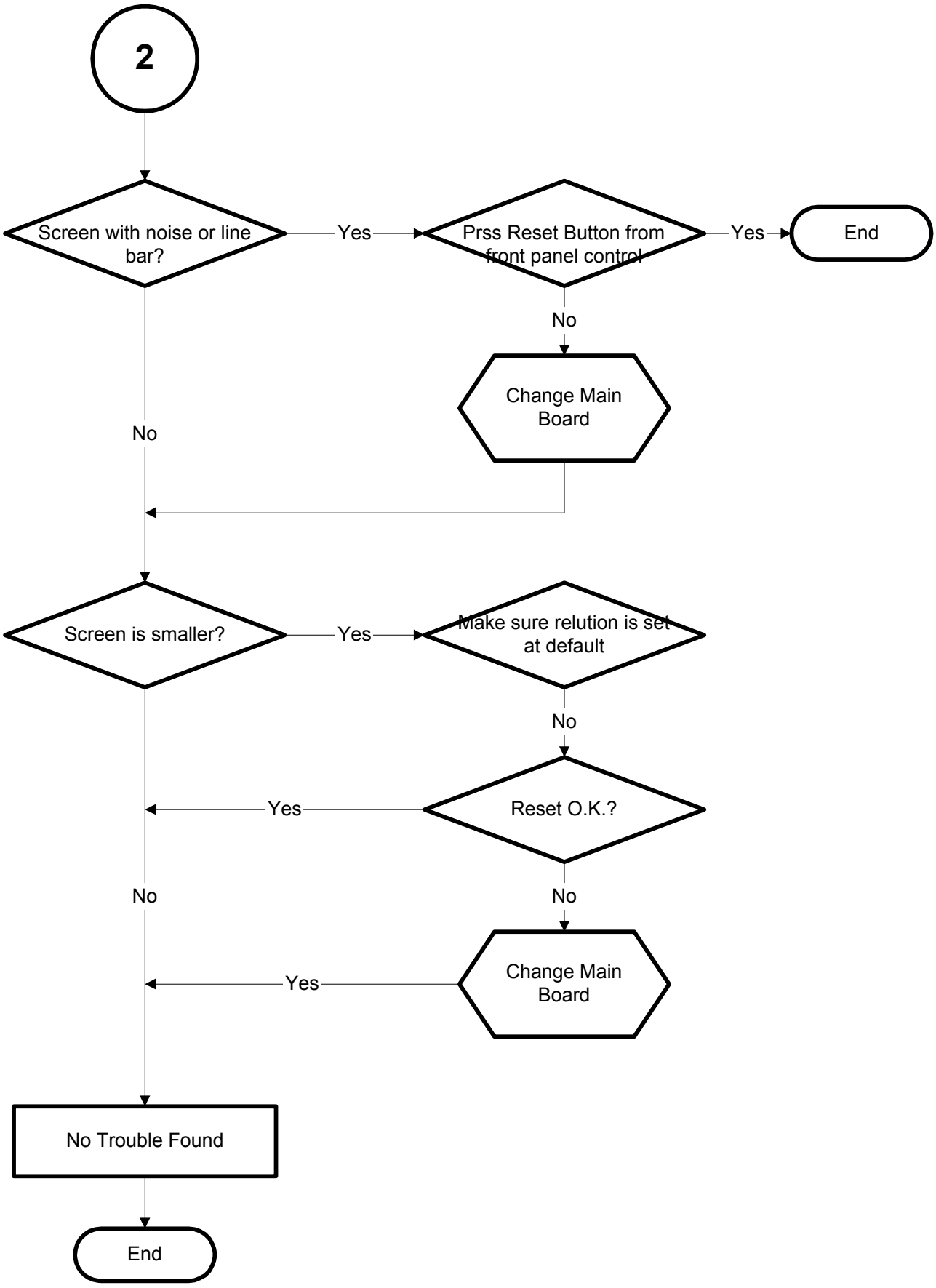


B. Backlight Troubleshooting

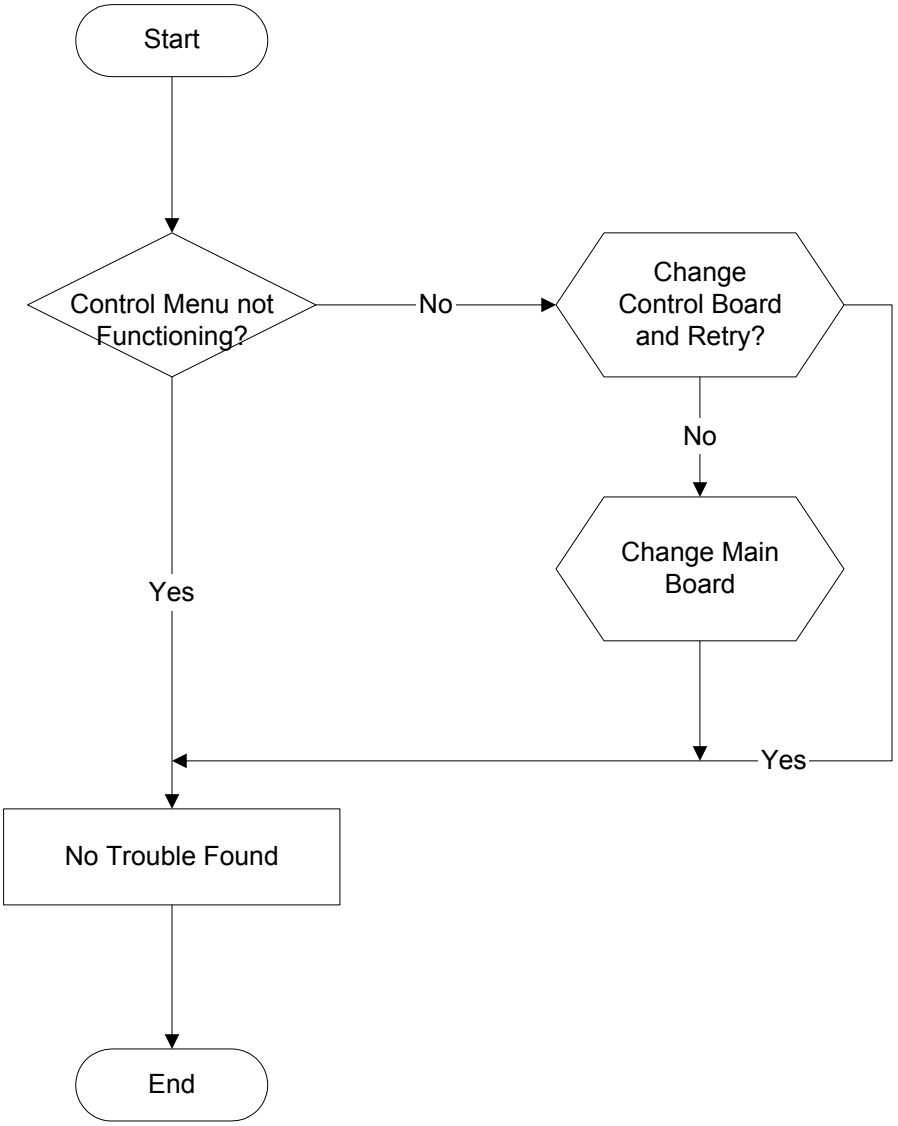


C. Performance Troubleshooting

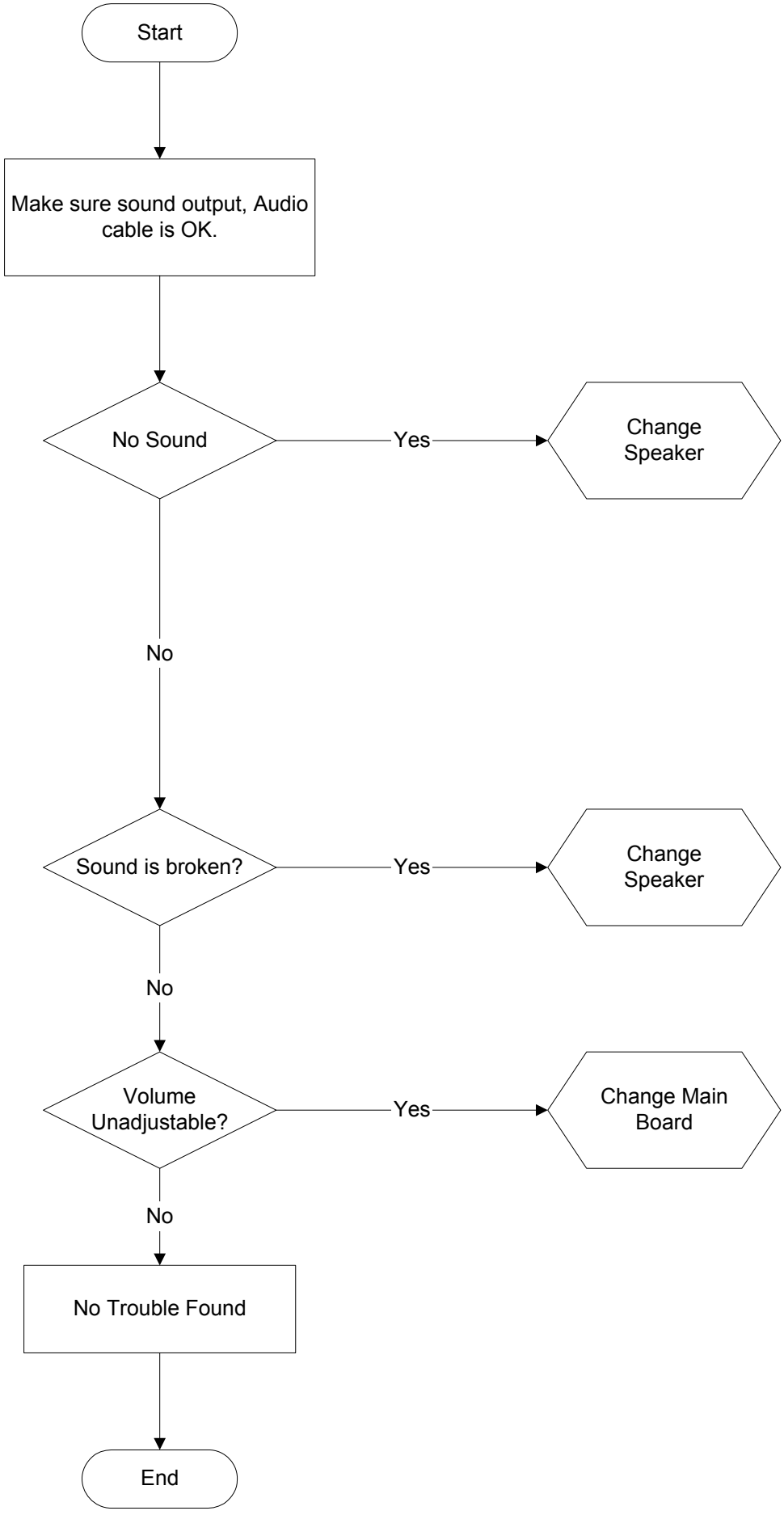



2
Screen with noise or line bar?
Yes
Prss Reset Button from front panel control
Yes
End
No
Change Main Board
No
Screen is smaller?
Yes
Make sure relution is set at default
No
Reset O.K.?
Yes
No
Change Main Board
Yes
No Trouble Found
End

D. Function Troubleshooting



E. Audio Troubleshooting



7. Recommended Spare Parts List

RECOMMENDED SPARE PARTS LIST (VA903m-3)

ViewSonic Model Number: VS11372
Rev: 1b
Serial No. Prefix: QAV

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#
1	**Accessories:**	Power Cord		A-00008026	W402091809531		
2	**PC Board Assembly:**	Main Board - LM/MR19I-AAA		B-00006501	XLM191A040002		
3		Key Board - SVA		B-00006502	XLM191A050001		
4		Inverter Board + Power Board Rev.1		B-00008053	XLM1700390015-SF		
6	**Cabinets:**	Front Panel (SILVER) +Button	Added on 10/16/06	C-00008154	XLM191A100002		
8		Back Cover - (Housing Assy(BLACK) RGB+Audio)	Added on 10/16/06	C-00008155	XLM191A110002		
9		Base Assembly (Black)		C-00008090	XLM171A280002		
10	**Cables:**	AUDIO CABLE 26A WG UL2547		CB-00005758	W0026918A0142		
11		VGA Cable 30AWG UL20276 (Video Cable)		CB-00006504	W0926418AQ951		
12	**Electronic**	LCD Module (HSD190ME13-A10) 19" LVDS Hannstar		E-00008009	E34862190H304		
13	**Components:**	LCD Module 19" HSD190ME13-A16 Hannstar	Added on 10/02/06	E-00005792	E34862190H303-A		
14	**Hardware:**	Bracket - LM/MR19I-AAA Black CMO		HW-00008014	XLM191A200002		
15	**Packing Material:**	Generic Foam (Set)		P-00001347	30833		
16		Generic Box , Rsc 22 1/2"x 11 3/4"x 23 1/2"		P-00002515	20653		
17		Craft Foam (Left)		P-00008071	F20133191A002		
18		Craft Foam (Right)		P-00008072	F20143191A002		
		Craft Box	Updated Vendor		~~F400718191A02~~		
19			Part # on 10/12/06	P-00008074	F4007K4191A02		

Remark 1: Above listed items are examples, supplier can expand the rows to add more necessary items.
Remark 2: All revised RSPLs with newly added items or any change made should be highlighted and correlated with the ECN/ECR approved by ViewSonic Corporation. This is to eliminate repeated cross checks of each item between this version and prior versions.

RECOMMENDED SPARE PARTS LIST (VA903b-3)

ViewSonic Model Number: VS11372
Rev: 1b
Serial No. Prefix: QAU

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#
1	**Accessories:**	Power Cord - USA		A-00008026	W402091809531		
2	**PC Board Assembly:**	Main Board - LM/MR19I-AAA		B-00006501	XLM191A040002		
3		Key Board - SVA		B-00006502	XLM191A050001		
4		Inverter Board + Power Board Rev.1		B-00008053	XLM1700390015-SF		
5	**Cabinets:**	Base Assembly (Midnight Gray)		C-00006583	XLM171A280003		
6			Updated Vendor		~~XLM191A100003~~		
7		Front panel (Bezel Assembly)	Part # on 10/12/06	C-00008088	XLM191A100002		
8			Updated Vendor		~~XLM191A110001~~		
9		Back Cover (Housing Assy RGB Only)	Part # on 10/12/06	C-00008089	XLM191A110002		
10	**Cables:**	Audio Cable - 1800mm 26A WG UL2547		CB-00005758	W0026918A0142		
11		VGA Cable 30AWG UL20276 (Video Cable)		CB-00006504	W0926418AQ951		
12	**Electronic**	LCD Module (HSD190ME13-A10) 19" LVDS HANNSTAR		E-00008009	E34862190H304		
13	**Components:**	LCD Module 19" HSD190ME13-A16 LVDS Hannstar VA/VG SERIES)	Added on 10/02/06	E-00005792	E34862190H303-A		
14	**Hardware:**	Bracket - SVA		HW-00008013	XLM191A200001		
15	**Packing Material:**	Generic Foam (Set)		P-00001347	30833		
16		Generic Box , Rsc 22 1/2"x 11 3/4"x 23 1/2"		P-00002515	20653		
17		Craft Foam (Left)		P-00008071	F20133191A002		
18		Craft Foam (Right)		P-00008072	F20143191A002		
			Updated Vendor		~~F400718191A01~~		
19		Craft Box	Part # on 10/12/06	P-00008073	F4007K4191A01		

Remark 1: Above listed items are examples, supplier can expand the rows to add more necessary items.
Remark 2: All revised RSPLs with newly added items or any change made should be highlighted and correlated with the ECN/ECR approved by ViewSonic Corporation. This is to eliminate repeated cross checks of each item between this version and prior versions.

BOM LIST (VA903m-3)

ViewSonic Model Number: VS11372

Rev: 1b

Serial No. Prefix: QAV

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	N/A	E015-006-W	(10mm*14mm) Bird logo			1
2	N/A	E015-016-1-W	VIEWSONIC38MM			1
3	E-00008009	E34862190H304	LCD MODULE HSD190ME13-A10 1280×1024 [SX] 19" LVDS HANNSTAR LEAD FREE			1
4	N/A	F0004191AK001	Quick Install Manual 16 mandarin speeches LM/MR19I-AAA L190*W127mm for viewsonic REV:0			1
5	N/A	F0010171A3001	base attachment procedure LM/MR17I-AAA ENGLISH L190*W127mm for viewsonic VA703 REV:0			1
6	N/A	F001217043001	Explanation card LM/LM1704 ENGLISH L210*W148mm for Viewsonic REV:0			1
7	N/A	F101415170401	MARK LM/LM1704 L11*W11mm energy star			1
8	N/A	F102506191A04	Safety Label LM/MR19I-AAA L89.5*W49.5mm for viewsonic (VA903m) REV:1			1
9	N/A	F103015170401	Blank Label LM/LM1704 L50*W25mm			1
10	DC-00008065	F103015171A01	Blank Label LM/MR17I-AAA L36*W9mm for viewsonic china			1
11	N/A	F103915170401	CARTON LABEL(UPC) LM/LM1704 L76*W76mm FOR VIEWSONIC			1
12	N/A	F103915171A01	CARTON LABEL LM/MR17I-AAA L89*W58mm for viewsonic 8ms			1
13	N/A	F104515170401	RATING LABEL LM/LM1704 L7*W7mm for Viewsonic			1
14	P-00008071	F20133191A002	POLYETHYLENE-L EPS LM/MR19I-AAA L155*W155*H483mm			1
15	P-00008072	F20143191A002	POLYETHYLENE-R EPS LM/MR19I-AAA L155*W155*H483mm			1
16	N/A	F300250000047	BAG /PE L550*W480*T0.03mm transparent			1
17	N/A	F300272501501	PLASTIC BAG LDPE L250*W150*T0.08mm			1
18	N/A	F4007K4191A02	CARTON K4K(C) LM/MR19I-AAA L485*W163*H503mm for viewsonic VA903m REV:1			1
19	N/A	F401422LM0001	PARTITION SUPPORT BC LM/MONITOR series L800*W50*H50*T5mm			0.035
20	N/A	F401422LM0003	PARTITION SUPPORT BC LM/MONITOR series L2000*W50*H50*T5mm			0.071
21	N/A	F401918191A01	PAPER COVER C LM/MR19I-AAA L1147*W981*H60mm(内尺寸)			0.035
22	N/A	F50301F199002	PALLET SMOKE WOOD LM/F199 L1140*W980*H120mm			0.017
23	N/A	F801191000005	CD M/MR19I-AA For viewsonic HSD REV:1			1
24	N/A	F900181000001	PE LIMPID W500*T0.03mm1500m/ROLL PACKTHREAD PP WHITE			0.0003
25	N/A	F9008G2000002	PACKTHREAD PP WHITE W14.5mm*T0.8mm 1300m/roll			0.0003
26	N/A	M101082807401	SCREW COPPER Φ2.8*L7mmWITH NICKEL			2
27	N/A	M105223004401	SCREW MACHINE (Binding) Φ3.0mm L5mmNICKEL			15
28	N/A	M105244006401	SCREW BINDING Φ4.0*L6mm WITH NICKEL AD WASHER			1
29	N/A	M108224008401	MACHINE SCREW Φ4.0*L8mm NICKEL			4
30	N/A	M115233008401	SCREW TA PW Φ3.0*L8.0mm NICKEL Washer(Φ10.0mm)			1
31	N/A	M621700LM0390-G	Main Bracket SECC LM/MR19I-AAA REV:0			1
32	N/A	P36D1C2010001	MYLAR L410*W320*T0.12mm LIMPID			1
33	N/A	P440703800002	RUBBER CUSHION(housing) Φ7.45*Φ3.2*H8mm BLACK			4
34	N/A	P441508980001	RUBBER CUSHION /RUBBER L15*W8*T9.8mm BLACKL15*8*9.8 BLACK			2
35	N/A	P532015A20001	CUSHION L20*W15*T12mmEVA			3
36	N/A	P705A995LM020-A	Back Cover ABS HB BLACK Shoot shaping LM/MR17I-AAA REV:0			1
37	N/A	V5004AP150201	ADHESIVE TAPE L25000*W15*T0.25mm 25m/ROLL(YW0910300002)			0.01
38	N/A	V900505020003	AL FOIL L50×W30×T0.10mm			1
39	N/A	V900505030001	AL FOIL L100xW40xT0.07mm			1
40	N/A	V900505030007	AL FOILL100xW30*T0.35mm(Y78400004G*1)			4
41	CB-00006504	W0926418AQ951	VGA CABLE 30AWG UL20276 L1800mm 15PIN black			1
42	A-00008026	W402091809531	AC POWER CORD USA size RVV 300/500V 3G S0.75mm2 L180cm BLACK YISHENG			1
43	CB-00008033	W47A103015003	AC POWER CORD UL 22AWG L150cm BLACK YISHENG			1
Substitute	N/A	W47A103015004	FFC WIRE CY050408001 P=1.0mm 30PIN L150mm HUNG FU			1
44	CB-00008043	W47B101030001	FFC WIRE CY050408001 P=1.0mm 30PIN L150mm HANQUAN			1
45	B-00008053	XLM1700390015-SF	POWER BOARD+INVERTER BOARDASSY PI-SB03 24V+5V LM/17"/19" LCD MONITOR FOR VIEWSONIC REV:1(PHIHONG FEI HONG)			1
Substitute	N/A	XLM1700390015-SH	POWER BOARD+INVERTER BOARDASSY PI-SB03 24V+5V LM/17"/19" LCD MONITOR FOR VIEWSONIC REV:1(UMEC HUAN LONG)			1
46	C-00008090	XLM171A280002	BASE ASSY LM/MR17I-AAA BASE+RUBBER BLACK REV:1(GAOCHENG)			1
47	N/A	P441200200001	RUBBER CUSHION Φ12*H2m m BLACK 3M9448 WITH Glue			6
48	N/A	P74AA995LM101-A	BASE ABS HB BLACK Shoot shaping LM/MR17I-AAA REV:1(GAOCHENG)			1
49	N/A	XLM171A380001	SHIELD ASSY LM/MR17I-AAA SHIELD+MYLAR			1
50	N/A	M711200LM0130-A	SHIELD SPTE T=0.3mm LM/MR17I-AAA REV:			1
51	N/A	P369579010001	MYLAR L95*W79.5*T0.1mm WHITH ADHESIVE			1
52	B-00006501	XLM191A040002	MAIN BOARD ASSY LM/MR19I-AA			1
53	N/A	A01F241615A21	IC EEPROM AT24C16 2500ns ATMEL SOIC-8 2K*8 (SMD)			1
54	N/A	A03D111703G03	IC LINEAR IC VOLTAGE REGULATOR GL1117A-3.3 (INPUT 4.8~12V OUTPUT 3.3V) SOT-223 GTM LeadFree (SMD)			1
Substitute	N/A	A03D111703A54	IC LINEAR VOLTAGE REGULATOR AP1117E33A SOT-223 ANACHIP (SMD)			1
55	N/A	A03D111703U01	IC LINEAR VOLTAGE REGULATOR LD1117-18-A SOT-223 3PIN 1.8V UTC (SMD)			1
Substitute	N/A	A03D111703A53	IC Linear voltage converter AP1117E18A SOT-223- 3Pin(SMD)			1
Substitute	N/A	A03D916403R01	IC , Analog , Regulator , RT9164-18CG , SOT223-3 , Richtek			1
56	N/A	A07TV51202M02	IC MCU MTV512GMG 64K MYSON LQFP-48P Lead Free (SMD)			1
57	N/A	A43H206506A01	LINEAR IC POWER AMPLIFIE with Volume contorl PA2065JI 2W DIP-16PIN ANPEC (DIP)			1
58	N/A	A08D2023R2001	IC ASIC/SCALER RTD2023L PLCC-48P REALTEK Lead Free (SMD)			1
59	N/A	BLM19VAM10116	BARE PCB LM/MR19V-AAAD MAIN BOARD 2SIDES FR-4 T1.6mm REV:1.6			3
60	N/A	C02205003C111	CAP MLCC NPO 5pF 50V ±0.25%(C) 0603 TAPPING (SMD)			2
61	N/A	C02210003J111	CAP MLCC NPO 10pF 50V ±5% 0603 TAPPING (SMD)			1
62	N/A	C02212003J111	CAP MLCC /NPO 12PF 50V ±5%(J) 0603 TAPPING (SMD)			3
63	N/A	C02222003J111	CAP MLCC /NPO 22PF 50V ±5%(J) 0603 TPPING (SMD)			3
64	N/A	C02310501K111	CAP MLCC X5R 1uF 16V ±10% (K) 0603 TAPING (SMD)			1
65	N/A	C4026813M5341	CAP EC -40~105°c 680uF 10V ±20%(M) Φ8*H11.5mm P=3.5mm(Curve FOOT P=2.0mm) LEAD FREE (DIP)			1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
66	N/A	C4022296M2122	CAP EC -40℃~105℃ 2.2uF/25V ±20%(M) ψ4*H5mm P=2.0mm (DIP)			1
67	N/A	C02410302K111	CAP MLCC X7R 10nF/25V±10%(K) 0603TAPPING (SMD)			35
68	N/A	C02410403K111	CAP MLCC X7R 0.1UF/50V ±10%(K) 0603 TAPPING(SMD)			6
69	N/A	C02447302K111	CAP MLCC/ X7R 0.047uF /25V ±10%(K) 0603 TAPPING(SMD)			1
70	N/A	C02447401K111	CAP MLCC X7R 470nf 16V ±10%(K) 0603 TAPING lead free (SMD)			3
71	N/A	C4021006M2431	CAP EC(S) -40~105℃ 10uF 25V ±20% (M) Φ5×H7mm P=2.5mm (DIP)			5
72	N/A	C4021014M2222	CAP EC(S) -40~105℃ 100uF 16V ±20% (M) Φ5×H11mm P=2.0mm (DIP)			2
73	N/A	C4022204M2322	CAP EC -40~105℃ 22UF/16V ±20%(M) § 5*H5MM P=2.0MM (DIP)			1
74	N/A	C4024704M2422	CAP EC -40° ~105℃ 47UF/16V ±20% (M) § 5*H7MM P=2.0MM **(DIP)**			3
75	N/A	D00BAV9905G01	DIODE BAV99 SOT-23 GTM (SMD)			4
76	N/A	D00L414803Y11	DIODE LL4148 SOD-123 YING SMD			6
77	N/A	D01ZT52C03K01	DIODE BZT52C SOD-123 KINGWELL 5.6V (SMD)			1
78	N/A	E231080150009	SPEAKER 3717CP15 OBLONG 8Ω 1.5W R/L450mm L37*W17*H9mm Y&G LEAD FREE			1
79	N/A	J4507270155B1	D-SUB H/D,15PIN,VGA PC99(LIGHT BLUE)DIP 90°,3 ROW,1285-15S-004-98C-01,TEKCON			1
80	N/A	J4509100102H1	FFC CONNECTOR P=1mm 10PIN 90° CF16061D0T0 HANQUAN (DIP)			1
81	N/A	J4509100306H1	FFC CONN ,30 PIN,1.0,DIP 180°,1 ROW,Cvilux 16301V0T or compatible			3
82	N/A	L004100201101	BEAD Chip Beads DDY160808U011MB 10Ω 200mA 0603(1608) TAPING MAGIC **LEAD FREE (SMD)**			5
83	N/A	L013121302A11	CHIP BEAD Ferrite ChipBeads (high current) WB201209B601QLT02 120Ω 3000mA 1206 Walsin (SMD)			2
84	N/A	Q441240047151	CRYSTAL QUARTZ/ 24MHZ 30PPM 20PF 49US CRE (DIP)			2
85	N/A	R070000J10311	RES CHIP 0Ω ±5%(J) 1/10W 0805 TAPPING (SMD)(Y180320000J0)			6
86	N/A	R070000J20111	05: RESISTOR.RES CHIP 0Ω ±5%(J).1/8W 0603 TAPPING (SMD).....			2
87	N/A	R070331J10111	RES CHIP 330Ω ±5%(J) 1/10 0603 TAPPING (SMD)			3
88	N/A	R070470J10111	RESISTOR.RES CHIP 47Ω±5%(J) 1/10W.0603 TAPPING (SMD)			3
89	N/A	R070750J10111	RESISTOR.RES CHIP 75Ω ±5%(J) 1/10W.0603 TAPPING (SMD).....			10
90	N/A	R071000J10111	RES CHIP 100Ω ±5%(J) 1/10 0603 TAPPING (SMD)			5
91	N/A	R074702J20111	05: RESISTOR.RES CHIP 47KΩ ±5%(J) 1/8W.0603 TAPPING (SMD).....			1
92	N/A	R070059J61111	RES CHIP 0.5Ω ±5%(J) 1/2W 1210 TAPING LEAD FREE (SMD)			9
93	N/A	R071001J20111	05: RESISTOR.RES CHIP 1KΩ ±5%(J) 1/8W.0603 TAPPING (SMD).....			5
94	N/A	R071002J20111	05: RESISTOR.RES CHIP 10KΩ ±5%(J) 1/8W.0603 TAPPING(SMD).....			1
95	N/A	R071003J10111	RES CHIP 100KΩ ±5%(J) 1/1 0603 TAPPING (SMD)			1
96	N/A	R071004J30111	RES CHIP 1MΩ ±5%(J) 1/16W 0603 TAPPING (SMD)			2
97	N/A	R071502F30111	RES CHIP 15KΩ ±1%(F) 1/16 0603 TAPPING (SMD)			3
98	N/A	R072001J30111	RES CHIP 2KΩ ±5%(J) 1/16W 0603 TAPPING （SMD)(Y180222001J0)			8
99	N/A	R072200J20111	05: RESISTOR.RES CHIP 220Ω ±5%(J) 1/8W.0603 TAPPING(SMD).....			1
100	N/A	R073002J10111	05: RESISTOR.RES CHIP 30KΩ±5%(J) 1/10W.0603 TAPPING (SMD).....			9
101	N/A	R074701J20111	RESISTOR.RES CHIP 4.7KΩ ±5%(J) 1/8W.0603 TAPPING(SMD).....			2
102	N/A	R076801J10111	RES CHIP 6.8KΩ ±5%(J)1/10W 0603 TAPING (SMD)			6
103	N/A	R144701J20112	RES ARRAY 4.7KΩ ±5%(J) 1/10W 8P4R 3216 TAPPING (SMD)			3
104	N/A	T00T390402G01	TR GMBT3904 SOT-23 GTM (SMD)			4
105	N/A	T00T390602G01	TR GMBT3906 SOT-23 GTM (SMD)			1
106	N/A	T01A340102A21	XSTR AO3401/ST3401, SOT- 23;3 , Alpha & Omega/ST			1
107	N/A	Y640307001*1	JACK PHONE EAR (TJ312-5BP- 1)			1
108	N/A	Y64115HB06*1	CONNECTOR 180℃ 2mm 6PIN			1
109	B-00006502	XLM191A050001	KEY BOARD ASSY LM/MR19I-AAA			1
110	N/A	BLM191AB10113	BARE PCB LM/MR19I-AAA BUTTON BOARD 1SIDE FR-1 T1.6mm REV:1.3			1
111	N/A	D462102211201	LED,Φ3.0x5.3 mmP=2.54 YELLOW/GREEN (DIP)			1
112	N/A	J4509100102H1	FFC CONNECTOR P=1mm 10PIN 90° CF16061D0T0 HANQUAN (DIP)			5
113	N/A	P764P295LM010	SWITCH PA66 BLACK LCDMONITOR SERIES REV:0			1
114	C-00008154	XLM191A100002	BEZEL ASSY(SILVER) LM/MR19I-AAA BEZEL+BTTTON			1
115	N/A	P727A901LMC60-C	BEZEL ABS HB SILVER PRINT LM/MR19I-AAA REV:0			1
116	PL-00006589	P763P398LM020-B	FUNCTION BUTTON PC SILVER PAINT LM/MR17I-AAA REV:0(GAOCHENG)			1
117	C-00008155	XLM191A110002	HOUSING ASSY(BLACK) LM/MR19I-AAA RGB+AUDIO			2
118	N/A	M105223004401	MACHINE SCREW Bouding Φ3.0*L6mm NICKEL			4
119	N/A	M410810130001	SCREW Φ4.0*L8mm NICKEL WITH WASHER			2
120	N/A	M627700LM0270-E	Holder SECC LM/MR19I- AA L114*W67.75*H8.1*T1.5mm REV:0			1
121	N/A	P728A995LM130-A	HOUSING ABS HB BLACK Shoot shaping LM/MR19I-AAA RGB+AUDIO REV:0			0.01
122	N/A	V300800000001	GLUE 50g/BOTTLE (：-60℃~+200℃)			1
123	HW-00008014	XLM191A200002	BRACKET ASSY(black) LM/MR19I-AAA bracket+hinge+screw(GAOCHENG)			1
124	N/A	M155234008401	SCREW plastics,be attacked Low carbon steel 十/PWΦ4.0*L8mm NICKEL			2
125	N/A	M155234010401	SCREWplastics,be attacked Low carbon steel 十/PWΦ4.0*L10mm NICKEL			1
126	N/A	M701900LM0190-K	SCREW Φ4.0*L8mm NICKEL WITH WASHER			1
127	N/A	P711A995LM030-A	Bracket ABS HB BLACK Shoot shaping LM/MR17I-AAA REV:0(GAOCHENG)			1
128	CB-00005758	W0026918A0142	AUDIO CABIE 26AWG UL2547 L=1800mm 6C BLACK			4
129	N/A	P392411A00001	SPEAKER SPONGE L24.5*W11*T10mm L/R 25°(VA703)			1
130	N/A	Y64115HB04*1	CONNECTOR M 180°/2.0mm 1 ROW 4P			1
131	N/A	L012121201113	BEAD CHOKE Ferrite(generalcircuit) DDY160808U121MB 120Ω 200mA 0603DUANWANG LEAD FREE (SMD)			9

BOM LIST (VA903b-3)

ViewSonic Model Number: VS11372

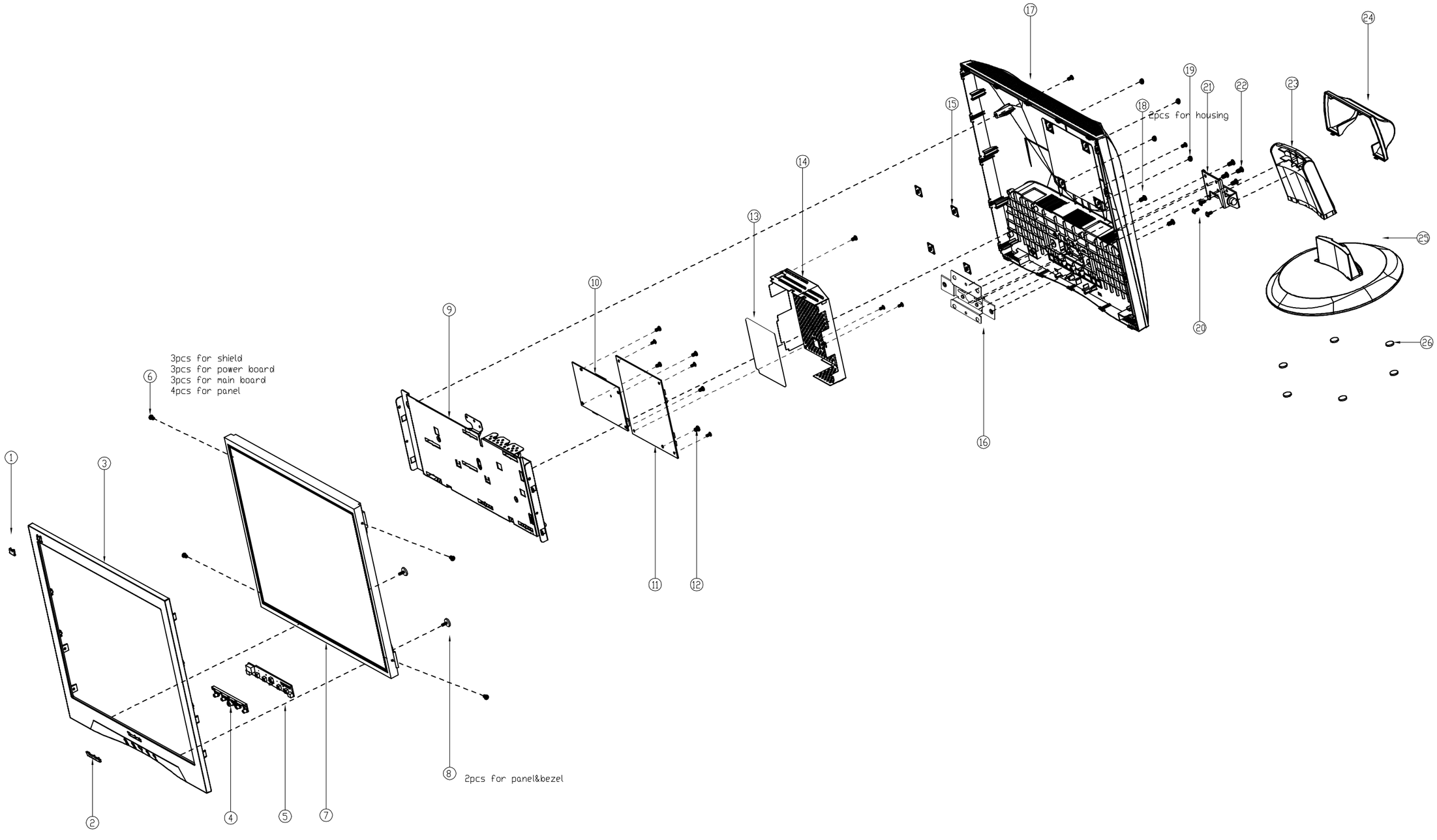
Rev: 1b

Serial No. Prefix: QAU

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	N/A	E015-006-W	(10mm*14mm) Bird logo			1
2	N/A	E015-016-1-W	VIEWSONIC38MM			1
3	E-00008009	E34862190H304	LCD MODULE HSD190ME13-A10 1280×1024 [SX] 19" LVDS HANNSTAR LEAD FREE			1
4	N/A	F0004171AK001	Quick Install Manual LM/MR19I-AA L190*W127mm for viewsonic REV:(			1
5	N/A	F0010171A3001	base attachment procedure LM/MR17I-AAA ENGLISH L190*W127mm for viewsonic VA703 REV:0			1
6	N/A	F001217043001	Explanation card LM/LM1704 ENGLISH L210*W148mm for Viewsonic REV:0			1
7	N/A	F101415170401	MARK LM/LM1704 L11*W11mm energy star			1
8	N/A	F102506191A03	Safety Label LM/MR19I-AA L89.5*W49.5mm for viewsonic (VA903b) REV:1			1
9	N/A	F103015170401	Blank Label LM/LM1704 L50*W25mm			1
10	DC-00008065	F103015171A01	Blank Label LM/MR17I-AAA L36*W9mm for viewsonic china			1
11	N/A	F103915170401	CARTON LABEL(UPC) LM/LM1704 L76*W76mm FOR VIEWSONIC			1
12	N/A	F103915171A01	CARTON LABEL LM/MR17I-AAA L89*W58mm for viewsonic 8ms			1
13	N/A	F104515170401	RATING LABEL LM/LM1704 L7*W7mm for Viewsonic			1
14	P-00008071	F20133191A002	POLYETHYLENE-L EPS LM/MR19I-AAA L155*W155*H483mm			1
15	P-00008072	F20143191A002	POLYETHYLENE-R EPS LM/MR19I-AAA L155*W155*H483mm			1
16	N/A	F300250000047	BAG /PE L550*W480*T0.03mm transparent			1
17	N/A	F300272501501	PLASTIC BAG LDPE L250*W150*T0.08mm			1
18	N/A	F4007K4191A01	carton K4K C LM/MR19I-AA L485*W163*H503mm for viewsonic VA903b REV:1			1
19	N/A	F401422LM0001	PARTITION SUPPORT BC LM/MONITOR series L800*W50*H50*T5mm			0.035
20	N/A	F401422LM0003	PARTITION SUPPORT BC LM/MONITOR series L2000*W50*H50*T5mm			0.071
21	N/A	F401918191A01	PAPER COVER C LM/MR19I-AAA L1147*W981*H60mm(内尺寸)			0.035
22	N/A	F50301F199002	PALLET SMOKE WOOD LM/F199 L1140*W980*H120mm			0.017
23	N/A	F801191000005	CD M/MR19I-AA For viewsonic HSD REV:1			1
24	N/A	F900181000001	PE LIMPID W500*T0.03mm1500m/ROLL PACKTHREAD PP WHITE			0.0003
25	N/A	F9008G2000002	PACKTHREAD PP WHITE W14.5mm*T0.8mm 1300m/roll			0.0003
26	N/A	M101082807401	SCREW COPPER Φ2.8*L7mmWITH NICKEL			2
27	N/A	M105223004401	SCREW MACHINE (Binding) Φ3.0mm L5mmNICKEL			15
28	N/A	M105244006401	SCREW BINDING Φ4.0*L6mm WITH NICKEL AD WASHER			1
29	N/A	M108224008401	MACHINE SCREW Φ4.0*L8mm NICKEL			4
30	N/A	M115233008401	SCREW TA PW Φ3.0*L8.0mm NICKEL Washer(Φ10.0mm)			1
31	N/A	M621700LM0390-G	Main Bracket SECC LM/MR19I-AAA REV:0			1
32	N/A	P36D1C2010001	MYLAR L410*W320*T0.12mm LIMPID			1
33	N/A	P440703800001	RUBBER CUSHION(housing) Φ7.45*Φ3.2*H8mm GREY			4
34	N/A	P441508980001	RUBBER CUSHION /RUBBER L15*W8*T9.8mm BLACKL15*8*9.8 BLACK			2
35	N/A	P532015A20001	CUSHION L20*W15*T12mmEVA			3
36	N/A	P705A997LM032-A	Back Cover ABS HB GRAY Shoot shaping LM/MR17I-AA REV:2(gaocheng)			1
37	N/A	V5004AP150201	ADHESIVE TAPE L25000*W15*T0.25mm 25m/ROLL(YW0910300002)			0.01
38	N/A	V900505020003	AL FOIL L50×W30×T0.10mm			1
39	N/A	V900505030001	AL FOIL L100xW40xT0.07mm			1
40	N/A	V900505030007	AL FOILL100xW30*T0.35mm(Y78400004G*1)			4
41	CB-00006504	W0926418AQ951	VGA CABLE 30AWG UL20276 L1800mm 15PIN black			1
42	A-00008026	W402091809531	AC POWER CORD USA size RVV 300/500V 3G S0.75mm2 L180cm BLACK YISHENG			1
43	CB-00008033	W47A103015003	AC POWER CORD UL 22AWG L150cm BLACK YISHENG			1
Substitute	N/A	W47A103015004	FFC WIRE CY050408001 P=1.0mm 30PIN L150mm HUNG FU			1
44	N/A	W47B101030001	FFC WIRE CY050408001 P=1.0mm 30PIN L150mm HANQUAN			1
45	B-00008053	XLM1700390015-SF	POWER BOARD+INVERTER BOARDASSY PI-SB03 24V+5V LM/17"/19" LCD MONITOR FOR VIEWSONIC REV:1(PHIHONG FEI HONG)			1
Substitute	N/A	XLM1700390015-SH	POWER BOARD+INVERTER BOARDASSY PI-SB03 24V+5V LM/17"/19" LCD MONITOR FOR VIEWSONIC REV:1(UMEC HUAN LONG)			1
46	C-00006583	XLM171A280003	BASE ASSY(midnight gray)LM/MR17I-AA BASE+RUBBER REV:1(GAOCHENG)			1
47	N/A	P441200200001	RUBBER CUSHION Φ12*H2m m BLACK 3M9448 WITH Glue			6
48	N/A	P74AA997LM011-A	BASE ABS HB GRAY Shoot shaping LM/MR17I-AA REV:1(GAOCHENG)			1
49	N/A	XLM171A380001	SHIELD ASSY LM/MR17I-AAA SHIELD+MYLAR			1
50	N/A	M711200LM0130-A	SHIELD SPTE T=0.3mm LM/MR17I-AAA REV:			1
51	N/A	P369579010001	MYLAR L95*W79.5*T0.1mm WHITH ADHESIVE			1
52	B-00006501	XLM191A040002	MAIN BOARD ASSY LM/MR19I-AA			1
53	N/A	A01F241615A21	IC EEPROM AT24C16 2500ns ATMEL SOIC-8 2K*8 (SMD)			1
54	N/A	A03D111703G03	IC LINEAR IC VOLTAGE REGULATOR GL1117A-3.3 (INPUT 4.8~12V OUTPUT 3.3V) SOT-223 GTM LeadFree (SMD)			1
Substitute	N/A	A03D111703A54	IC LINEAR VOLTAGE REGULATOR AP1117E33A SOT-223 ANACHIP (SMD)			1
55	N/A	A03D111703U01	IC LINEAR VOLTAGE REGULATOR LD1117-18-A SOT-223 3PIN 1.8V UTC (SMD)			1
Substitute	N/A	A03D111703A53	IC Linear voltage converter AP1117E18A SOT-223- 3Pin(SMD)			1
Substitute	N/A	A03D916403R01	IC , Analog , Regulator , RT9164-18CG , SOT223-3 , Richtek			1
56	N/A	A07TV51202M02	IC MCU MTV512GMG 64K MYSON LQFP-48P Lead Free (SMD)			1
57	N/A	A08D2023R2001	IC ASIC/SCALER RTD2023L PLCC-48P REALTEK Lead Free (SMD)			1
58	N/A	BLM19VAM10116	BARE PCB LM/MR19V-AAAD MAIN BOARD 2SIDES FR-4 T1.6mm REV:1.6			1
59	N/A	C02205003C111	CAP MLCC NPO 5pF 50V ±0.25%(C) 0603 TAPPING (SMD)			3
60	N/A	C02210003J111	CAP MLCC NPO 10pF 50V ±5% 0603 TAPPING (SMD)			2
61	N/A	C02212003J111	CAP MLCC /NPO 12PF 50V ±5%(J) 0603 TAPPING (SMD)			1
62	N/A	C02222003J111	CAP MLCC /NPO 22PF 50V ±5%(J) 0603 TPPING (SMD)			3
63	N/A	C02310501K111	CAP MLCC X5R 1uF 16V ±10% (K) 0603 TAPING (SMD)			1
64	N/A	C02410302K111	CAP MLCC X7R 10nF/25V±10%(K) 0603TAPPING (SMD)			1
65	N/A	C02410403K111	CAP MLCC X7R 0.1UF/50V ±10%(K) 0603 TAPPING(SMD)			33
66	N/A	C02447302K111	CAP MLCC/ X7R 0.047uF /25V ±10%(K) 0603 TAPPING(SMD)			6
67	N/A	C02447401K111	CAP MLCC X7R 470nf 16V ±10%(K) 0603 TAPING lead free (SMD)			1
68	N/A	C4021006M2431	CAP EC(S) -40~105℃ 10uF 25V ±20% (M) Φ5×H7mm P=2.5mm (DIP)			2
69	N/A	C4021014M2222	CAP EC(S) -40~105℃ 100uF 16V ±20% (M) Φ5×H11mm P=2.0mm (DIP)			5
70	N/A	C4022204M2322	CAP EC -40~105℃ 22UF/16V ±20%(M) ∮5*H5MM P=2.0MM (DIP)			2
71	N/A	C4024704M2422	CAP EC -40° ~105℃ 47UF/16V ±20% (M) ∮5*H7MM P=2.0MM **(DIP)**			1
72	N/A	D00BAV9905G01	DIODE BAV99 SOT-23 GTM (SMD)			3
73	N/A	D00L414803Y11	DIODE LL4148 SOD-123 YING SMD			4
74	N/A	D01ZT52C03K01	DIODE BZT52C SOD-123 KINGWELL 5.6V (SMD)			6
75	N/A	J4507270155B1	D-SUB H/D,15PIN,VGA PC99(LIGHT BLUE)DIP 90°,3 ROW,1285-15S-004-98C-01,TEKCON			1
76	N/A	J4509100102H1	FFC CONNECTOR P=1mm 10PIN 90° CF16061D0T0 HANQUAN (DIP)			1
77	N/A	J4509100306H1	FFC CONN ,30 PIN,1.0,DIP 180°,1 ROW,Cvilux 16301V0T or compatible			1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
78	N/A	L004100201101	BEAD Chip Beads DDY160808U011MB 10Ω 200mA 0603(1608) TAPING MAGIC **LEAD FREE (SMD)**			3
79	N/A	L013121302A11	CHIP BEAD Ferrite ChipBeads (high current) WB201209B601QLT02 120Ω 3000mA 1206 Walsin (SMD)			5
80	N/A	Q441240047151	CRYSTAL QUARTZ/ 24MHZ 30PPM 20PF 49US CRE (DIP)			2
81	N/A	R070000J10311	RES CHIP 0Ω ±5%(J) 1/10W 0805 TAPPING (SMD)(Y180320000J0)			2
82	N/A	R070000J20111	05: RESISTOR.RES CHIP 0Ω ±5%(J).1/8W 0603 TAPPING (SMD).....			6
83	N/A	R070331J10111	RES CHIP 330Ω ±5%(J) 1/10 0603 TAPPING (SMD)			2
84	N/A	R070470J10111	RESISTOR.RES CHIP 47Ω±5%(J) 1/10W.0603 TAPPING (SMD)			3
85	N/A	R070750J10111	RESISTOR.RES CHIP 75Ω ±5%(J) 1/10W.0603 TAPPING (SMD).....			3
86	N/A	R071000J10111	RES CHIP 100Ω ±5%(J) 1/10 0603 TAPPING (SMD)			10
87	N/A	R071001J20111	05: RESISTOR.RES CHIP 1KΩ ±5%(J) 1/8W.0603 TAPPING (SMD).....			5
88	N/A	R071002J20111	05: RESISTOR.RES CHIP 10KΩ ±5%(J) 1/8W.0603 TAPPING(SMD).....			3
89	N/A	R071003J10111	RES CHIP 100KΩ ±5%(J) 1/1 0603 TAPPING (SMD)			1
90	N/A	R071004J30111	RES CHIP 1MΩ ±5%(J) 1/16W 0603 TAPPING (SMD)			1
91	N/A	R071502F30111	RES CHIP 15KΩ ±1%(F) 1/16 0603 TAPPING (SMD)			1
92	N/A	R072001J30111	RES CHIP 2KΩ ±5%(J) 1/16W 0603 TAPPING （SMD)(Y180222001J0)			3
93	N/A	R072200J20111	05: RESISTOR.RES CHIP 220Ω ±5%(J) 1/8W.0603 TAPPING(SMD).....			8
94	N/A	R073002J10111	05: RESISTOR.RES CHIP 30KΩ±5%(J) 1/10W.0603 TAPPING (SMD).....			1
95	N/A	R074701J20111	RESISTOR.RES CHIP 4.7KΩ ±5%(J) 1/8W.0603 TAPPING(SMD).....			9
96	N/A	R076801J10111	RES CHIP 6.8KΩ ±5%(J)1/10W 0603 TAPING (SMD)			2
97	N/A	R144701J20112	RES ARRAY 4.7KΩ ±5%(J) 1/10W 8P4R 3216 TAPPING (SMD)			6
98	N/A	T00T390402G01	TR GMBT3904 SOT-23 GTM (SMD)			3
99	N/A	T00T390602G01	TR GMBT3906 SOT-23 GTM (SMD)			4
100	N/A	T01A340102A21	XSTR AO3401/ST3401, SOT- 23;3 , Alpha & Omega/ST			1
101	N/A	Y640307001*1	JACK PHONE EAR (TJ312-5BP- 1)			1
102	N/A	Y64115HB06*1	CONNECTOR 180℃ 2mm 6PIN			1
103	B-00006502	XLM191A050001	KEY BOARD ASSY LM/MR19I-AAA			1
104	N/A	BLM191AB10113	BARE PCB LM/MR19I-AAA BUTTON BOARD 1SIDE FR-1 T1.6mm REV:1.3			1
105	N/A	D462102211201	LED,Φ3.0x5.3 mmP=2.54 YELLOW/GREEN (DIP)			1
106	N/A	J4509100102H1	FFC CONNECTOR P=1mm 10PIN 90° CF16061D0T0 HANQUAN (DIP)			1
107	N/A	P764P295LM010	SWITCH PA66 BLACK LCDMONITOR SERIES REV:0			5
108	C-00008088	XLM191A100003	BEZEL ASSY(midnight gray)LM/MR19I-AA BEZEL+BUTTON			1
109	N/A	P727A997LM040-C	BEZEL ABS HB GRAY PRINT LM/MR19I-AA REV:0			1
110	PL-00006589	P763P398LM020-B	FUNCTION BUTTON PC SILVER PAINT LM/MR17I-AAA REV:0(GAOCHENG)			1
111	C-00008089	XLM191A110001	HOUSING ASSY(midnight gray) LM/MR19I-AA RGB ONLY			1
112	N/A	M105223004401	MACHINE SCREW Bouding Φ3.0*L6mm NICKEL			2
113	N/A	M410810130001	SCREW Φ4.0*L8mm NICKEL WITH WASHER			4
114	N/A	M627700LM0270-E	Holder SECC LM/MR19I- AA L114*W67.75*H8.1*T1.5mm REV:0			1
115	N/A	P728A997LM030-A	HOUSING ABS HB GREY INJECION LM/MR19I-AA RGB ONLY REV:0			1
116	N/A	V300800000001	GLUE 50g/BOTTLE（: -60℃~+200℃）			0.01
117	HW-00008013	XLM191A200001	BRACKET ASSY(midnight gray)LM/MR19I-AA bracket+hinge+screw(GAOCHENG)			1
118	N/A	M155234008401	SCREW plastics,be attacked Low carbon steel 十/PWΦ4.0*L8mm NICKEL			1
119	N/A	M155234010401	SCREWplastics,be attacked Low carbon steel 十/PWΦ4.0*L10mm NICKEL			2
120	N/A	M701900LM0190-K	SCREW Φ4.0*L8mm NICKEL WITH WASHER			1
121	N/A	P711A997LM010-A	Bracket ABS HB GRAY INJECION LM/MR17I-AA REV:0			1

8. Exploded Diagram and Exploded Parts List



EXPLODED PARTS LIST (VA903b-3)

ViewSonic Model Number: VS11372

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	N/A	E015-006-W	(About 10mm*14mm) Bird logo	1
2	N/A	E015-016-1-W	VIEWSONIC 38MM	1
3	N/A	P727A997LM040-C	BEZEL ABS HB GRAY Printed LM/MR19I-AA REV:0	1
4	PL-00006589	P763P398LM020-B	FUNCTION BUTTON PC SILVER LM/MR17I-AAA REV:0	1
5	B-00006502	XLM191A050001	KEY BOARD ASSY LM/MR19I-AAA	1
6	N/A	M105243005401	SCREW MACHINE (Binding) Φ3.0mm L5mm NICKEL	13
7	E-00008009	E34862190H304	LCD MODULE HSD190ME13-A10 1280×1024 [SX] 19" LVDS HANNSTAR LEAD FREE	1
8	N/A	M115233008401	SCREW TA Φ3.0*L8.0mm NICKEL Washer(Φ10.0mm)	2
9	N/A	M621700LM0390-G	Bracket SECC LM/MR19I-AAA REV:0	1
10	B-00006501	XLM191A040002	MAIN BOARD ASSY LM/MR19I-AA	1
11	B-00006503	XLM1700390010	POWER BOARD+INVERTER BOARD ASSY PI-SB03 24V+5V LM/17"/19" LCD MONITOR FOR VIEWSONIC	1
12	N/A	M105244006401	MECHENICAL SCREW WITH NI	1
13	N/A	P369579010001	MYLAR L95*W79.5*T0.1mm WHITH ADHESIVE	1
14	N/A	M711200LM0130-A	Shield SPTE LM/MR17I-AAA REV:	1
15	N/A	P612012010001	RUBBER FOOT ROUND Φ12*T2mm BLACK	6
16	N/A	P74AA997LM010-A	BASE ABS HB GRAY LM/MR17I-AA REV:0	1
17	N/A	P705A997LM030-A	Back Cover ABS HB GRAY LM/MR17I-AA REV:0	1
18	N/A	P711A995LM030-A	Bracket ABS HB BLACK LM/MR17I-AAA REV:0	1
19	N/A	M108224008401	MACHINE SCREW Φ4.0*L8mm NICKEL	4
20	N/A	M701900LM0140-K	Hinge SPCC NI LM/MR17I-AAA	1
21	N/A	M155234008401	SCREW PLASTIC Φ4.0*L8mm NICKEL	3
22	N/A	P440700450001	RUBBER CUSHION Φ7.0*H4.5mm BLACK	4
23	N/A	M105243006401	MACHINE SCREW Φ3.0*L6mm NICKEL	2
24	N/A	P728A995LM130-A	HOUSING ABS HB BLACK LM/MR19I-AAA RGB+AUDIO REV:0	1
25	N/A	M627700LM0270-E	Holder SECC WASHER LM/MR19I-AA L114*W67.75*H8.1*T1.5mm REV:0	1
26	N/A	M410810130001	VASA BKT T=0.8mm SECC WASHER	4

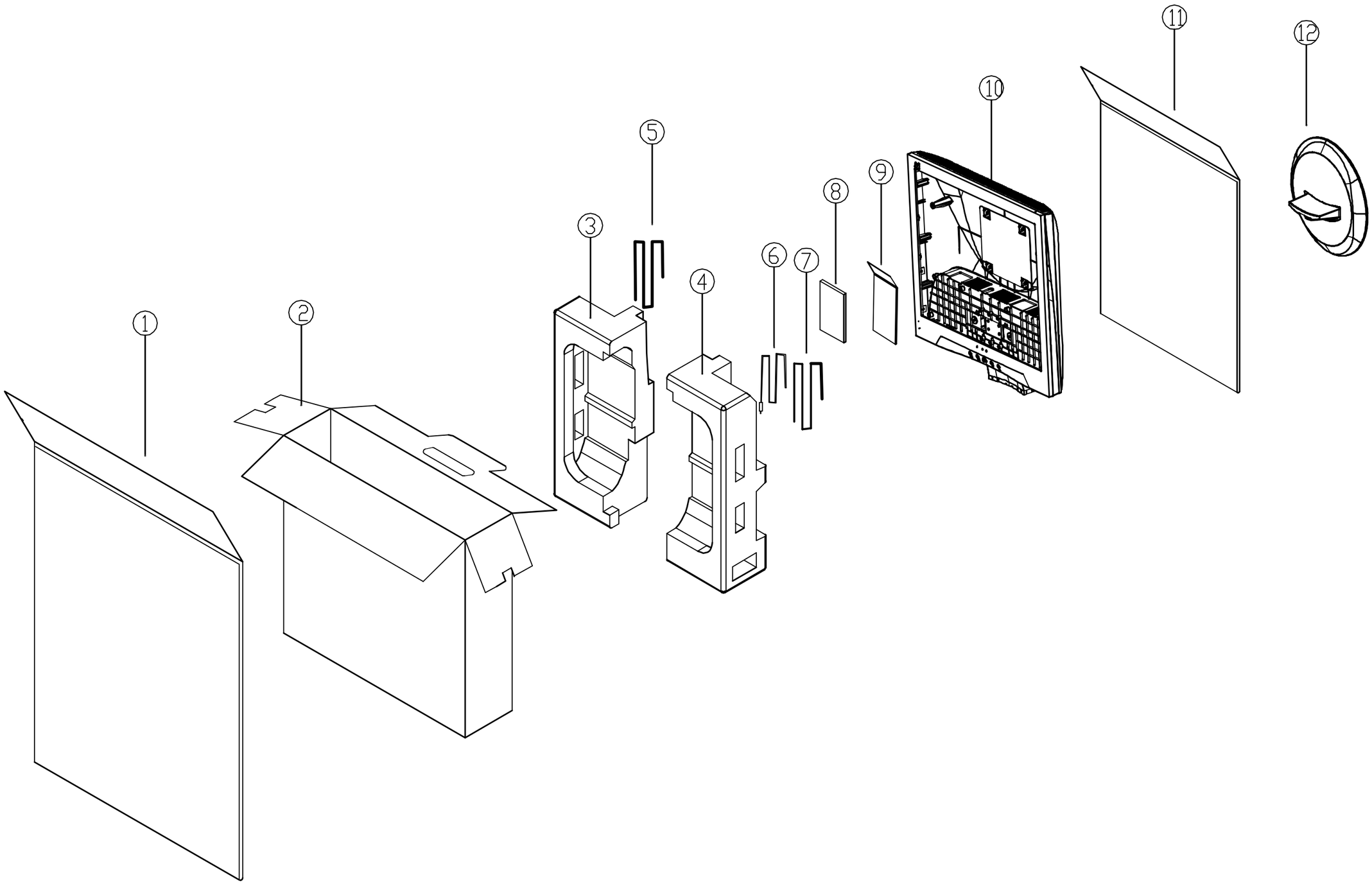
EXPLODED PARTS LIST (VA903m-3)

ViewSonic Model Number: VS11372

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	N/A	E015-006-W	(About 10mm*14mm) Bird logo	1
2	N/A	E015-016-1-W	VIEWSONIC 38MM	1
3	N/A	P727A901LMC60-C	BEZEL ABS HB SILVER Print LM/MR19I-AAA REV:0	1
4	PL-00006589	P763P398LM020-B	FUNCTION BUTTON PC SILVER LM/MR17I-AAA REV:0	1
5	B-00006502	XLM191A050001	KEY BOARD ASSY LM/MR19I-AAA	1
6	N/A	M105243005401	SCREW MACHINE (Binding) Φ3.0mm L5mm NICKEL	13
7	E-00008009	E34862190H304	LCD MODULE HSD190ME13-A10 1280×1024 [SX] 19" LVDS HANNSTAR LEAD FREE	1
8	N/A	M115233008401	SCREW TA Φ3.0*L8.0mm NICKEL Washer(Φ10.0mm)	2
9	N/A	M621700LM0390-G	Bracket SECC LM/MR19I-AAA REV:0	1
10	B-00006501	XLM191A040002	MAIN BOARD ASSY LM/MR19I-AA	1
11	B-00006503	XLM1700390010	POWER BOARD+INVERTER BOARD ASSY PI-SB03 24V+5V LM/17"/19" LCD MONITOR FOR VIEWSONIC	1
12	N/A	M105244006401	MECHENICAL SCREW WITH NI	1
13	N/A	P369579010001	MYLAR L95*W79.5*T0.1mm WHITH ADHESIVE	1
14	N/A	M711200LM0130-A	Shield SPTE LM/MR17I-AAA REV:	1
15	N/A	P612012010001	RUBBER FOOT ROUND Φ12*T2mm BLACK	6
16	N/A	P74AA997LM010-A	BASE ABS HB GRAY LM/MR17I-AA REV:0	1
17	N/A	P705A997LM030-A	Back Cover ABS HB GRAY LM/MR17I-AA REV:0	1
18	N/A	P711A995LM030-A	Bracket ABS HB BLACK LM/MR17I-AAA REV:0	1
19	N/A	M108224008401	MACHINE SCREW Φ4.0*L8mm NICKEL	4
20	N/A	M701900LM0140-K	Hinge SPCC NI LM/MR17I-AAA	1
21	N/A	M155234008401	SCREW PLASTIC Φ4.0*L8mm NICKEL	3
22	N/A	P440700450001	RUBBER CUSHION Φ7.0*H4.5mm BLACK	4
23	N/A	M105243006401	MACHINE SCREW Φ3.0*L6mm NICKEL	2
24	N/A	P728A995LM130-A	HOUSING ABS HB BLACK LM/MR19I-AAA RGB+AUDIO REV:0	1
25	N/A	M627700LM0270-E	Holder SECC WASHER LM/MR19I-AA L114*W67.75*H8.1*T1.5mm REV:0	1
26	N/A	M410810130001	VASA BKT T=0.8mm SECC WASHER	4

PACKING FOR SHIPPING



PACKING PARTS LIST (VA903b-3)

ViewSonic Model Number: VS11372

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	DESCRIPTION	Qty
1	N/A	F300270000037	PLASTIC BAG LDPE L700*W(500+140)*T0.04mm	1
2	P-00008073	F4007K4191A01	CARTON C(K4K) LM/MR19I-AAA L485*W163*H503mm for viewsonic(VA903b)	1
3	P-00008071	F20133191A002	POLYETHYLENE-L EPS LM/MR19I-AAA L155*W155*H483mm	1
4		F20143191A002	POLYETHYLENE-R EPS LM/MR19I-AAA L155*W155*H483mm	1
5	A-00006505	W402221509531	AC POWER CORD US Spec 22AWG L150cm BLACK	1
6	CB-00005758	W0026918A0142	AUDIO CABIE 26AWG UL2547 L=1800mm 6C BLACK	1
7	N/A	W0926417AQ951	VGA CABLE 30AWG UL20276 L1800mm 15PIN Black	1
8	N/A	F801190000017	CD Manual LM/MR17I-AA VIEWSONIC VA703b INNOLUX REV:0	1
9	N/A	F300272501501	PLASTIC BAG LDPE L250*W150*T0.08mm	1
10	N/A	N/A	Monitor Head Only	1
11	P-00006586	F300250000070	PLASTIC BAG PE L610*W510*T0.04mm	1
12	C-00006583	XLM171A280003	BASE ASSY LM/MR17I-AAA BASE+RUBBER(Midnight Gray)	1

PACKING PARTS LIST (VA903m-3)

ViewSonic Model Number: VS11372

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	N/A	F300270000037	PLASTIC BAG LDPE L700*W(500+140)*T0.04mm	1
2	P-00008074	F4007K4191A02	CARTON C(K4K) LM/MR19I-AAA L485*W163*H503mm for viewsonic(VA903m)	1
3	P-00008071	F20133191A002	POLYETHYLENE-L EPS LM/MR19I-AAA L155*W155*H483mm	1
4	P-00008072	F20143191A002	POLYETHYLENE-R EPS LM/MR19I-AAA L155*W155*H483mm	1
5	A-00006505	W402221509531	AC POWER CORD US Spec 22AWG L150cm BLACK	1
6	CB-00005758	W0026918A0142	AUDIO CABIE 26AWG UL2547 L=1800mm 6C BLACK	1
7	N/A	W0926417AQ951	VGA CABLE 30AWG UL20276 L1800mm 15PIN Black	1
8	N/A	F801190000017	CD Manual LM/MR17I-AA VIEWSONIC VA703b INNOLUX REV:0	1
9	N/A	F300272501501	PLASTIC BAG LDPE L250*W150*T0.08mm	1
10			Monitor Head Only	1
11	P-00006586	F300250000070	PLASTIC BAG PE L610*W510*T0.04mm	1
12	C-00008090	XLM171A280002	BASE ASSY LM/MR17I-AAA BASE+RUBBER BLACK	1

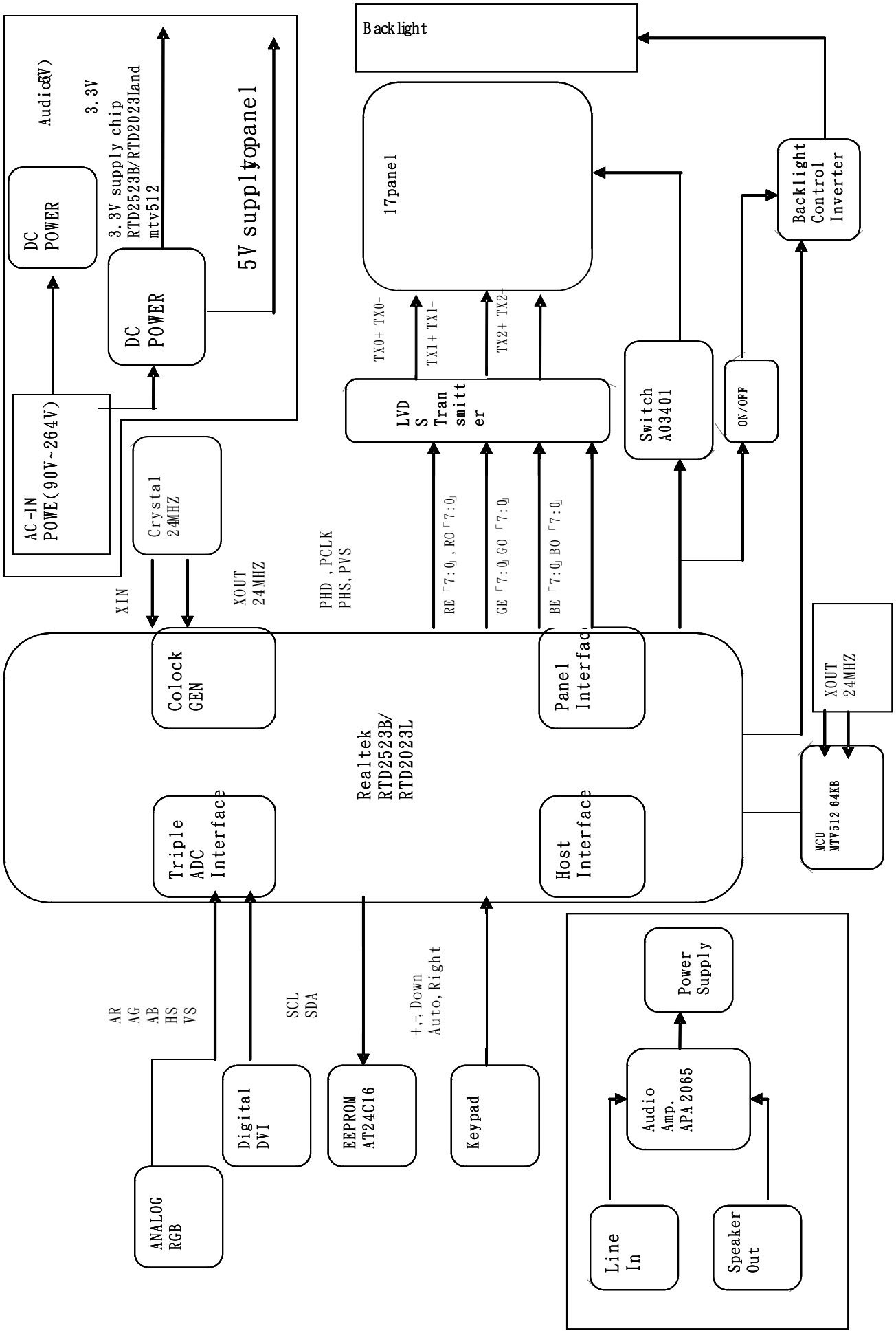
PACKING PARTS LIST (VA903m-3)

ViewSonic Model Number: VS11372

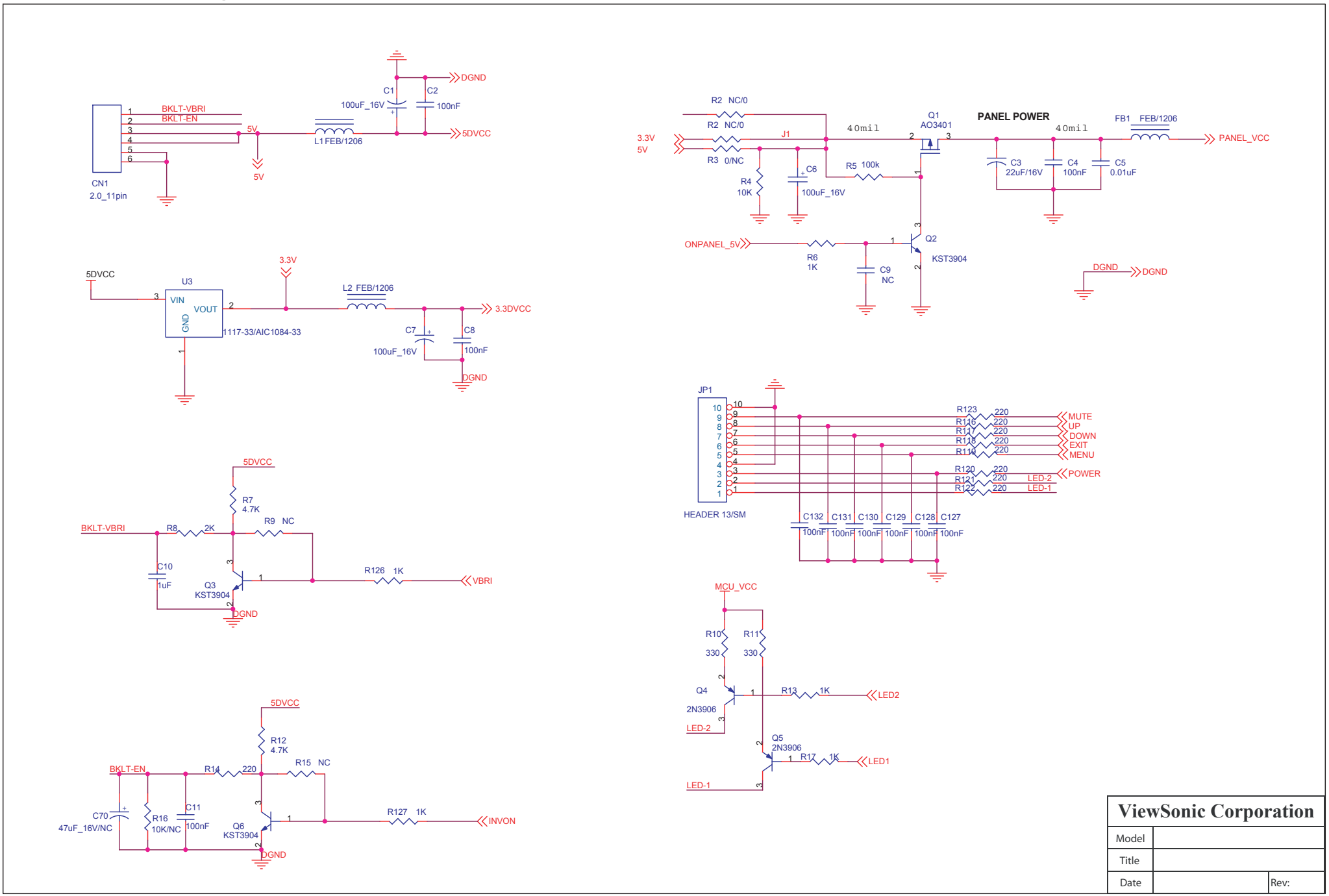
Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	N/A	F300270000037	PLASTIC BAG LDPE L700*W(500+140)*T0.04mm	1
2	P-00008074	F4007K4191A02	CARTON C(K4K) LM/MR19I-AAA L485*W163*H503mm for viewsonic(VA903m)	1
3	P-00008071	F20133191A002	POLYETHYLENE-L EPS LM/MR19I-AAA L155*W155*H483mm	1
4	P-00008072	F20143191A002	POLYETHYLENE-R EPS LM/MR19I-AAA L155*W155*H483mm	1
5	A-00006505	W402221509531	AC POWER CORD US Spec 22AWG L150cm BLACK	1
6	CB-00005758	W0026918A0142	AUDIO CABIE 26AWG UL2547 L=1800mm 6C BLACK	1
7	N/A	W0926417AQ951	VGA CABLE 30AWG UL20276 L1800mm 15PIN Black	1
8	N/A	F801190000017	CD Manual LM/MR17I-AA VIEWSONIC VA703b INNOLUX REV:0	1
9	N/A	F300272501501	PLASTIC BAG LDPE L250*W150*T0.08mm	1
10			Monitor Head Only	1
11	P-00006586	F300250000070	PLASTIC BAG PE L610*W510*T0.04mm	1
12	C-00008090	XLM171A280002	BASE ASSY LM/MR17I-AAA BASE+RUBBER BLACK	1

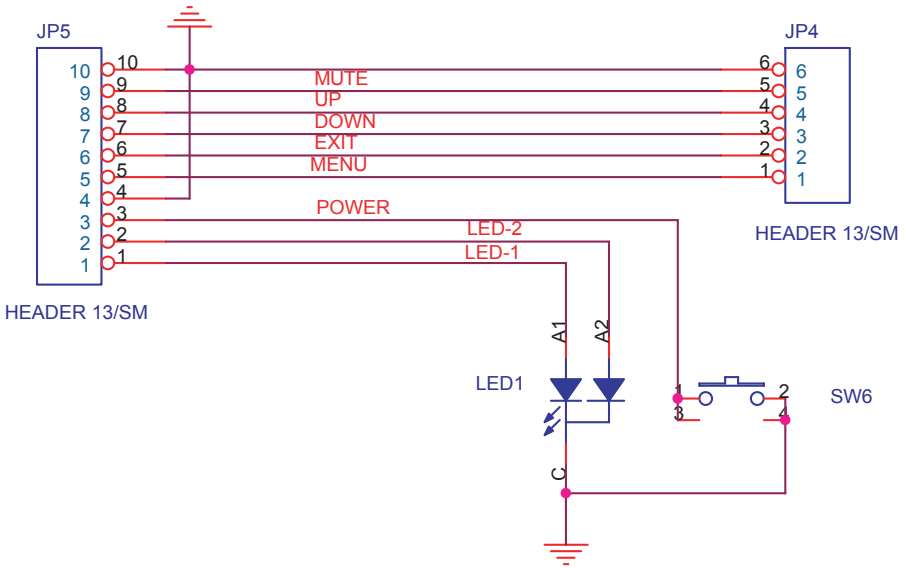
9. Block Diagram

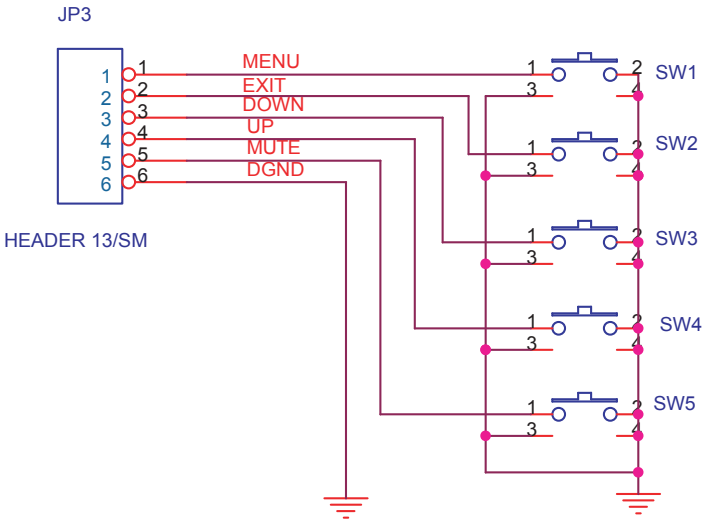


10. Schematic Diagrams

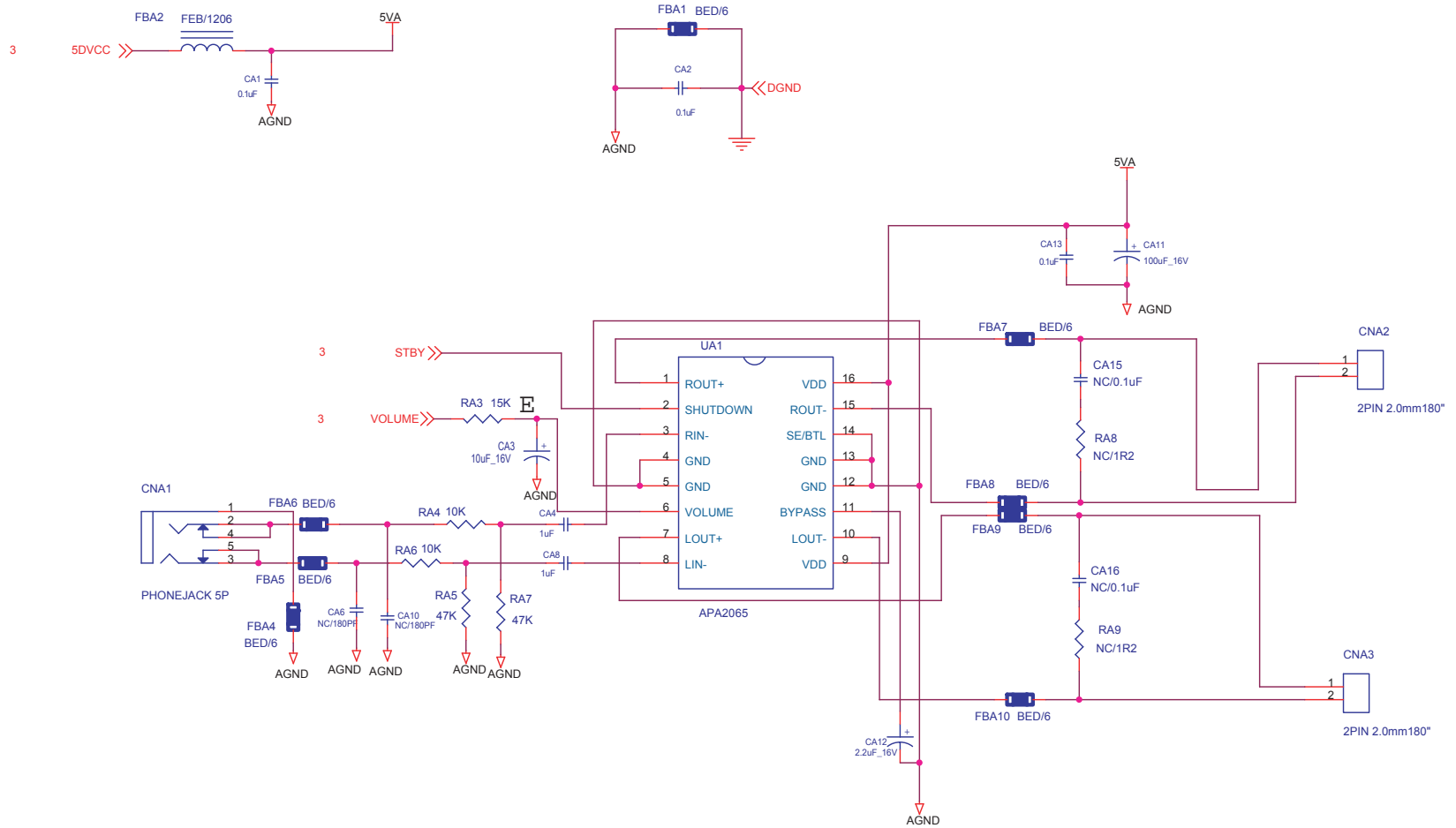


ViewSonic Corporation		
Model		
Title		
Date		Rev:

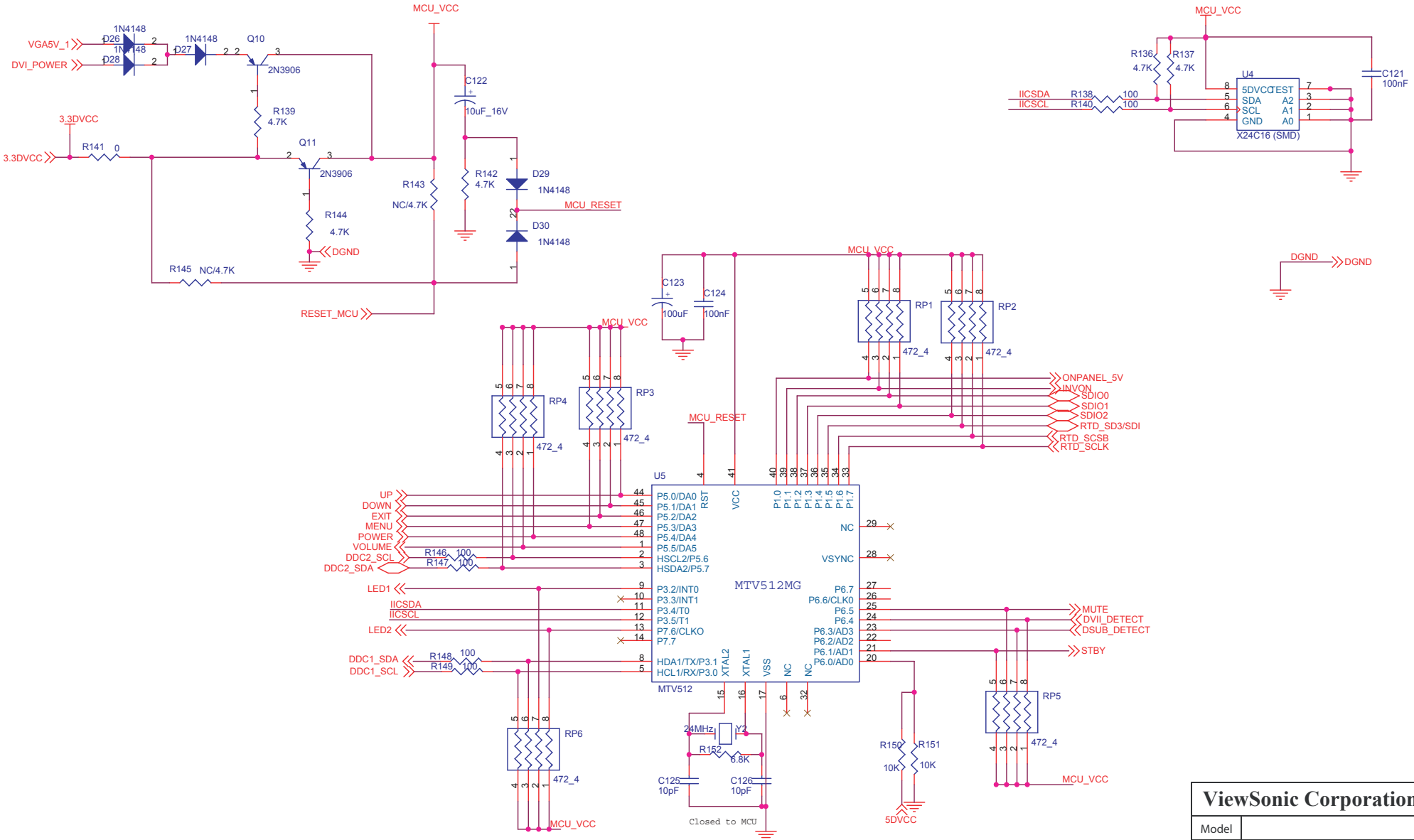




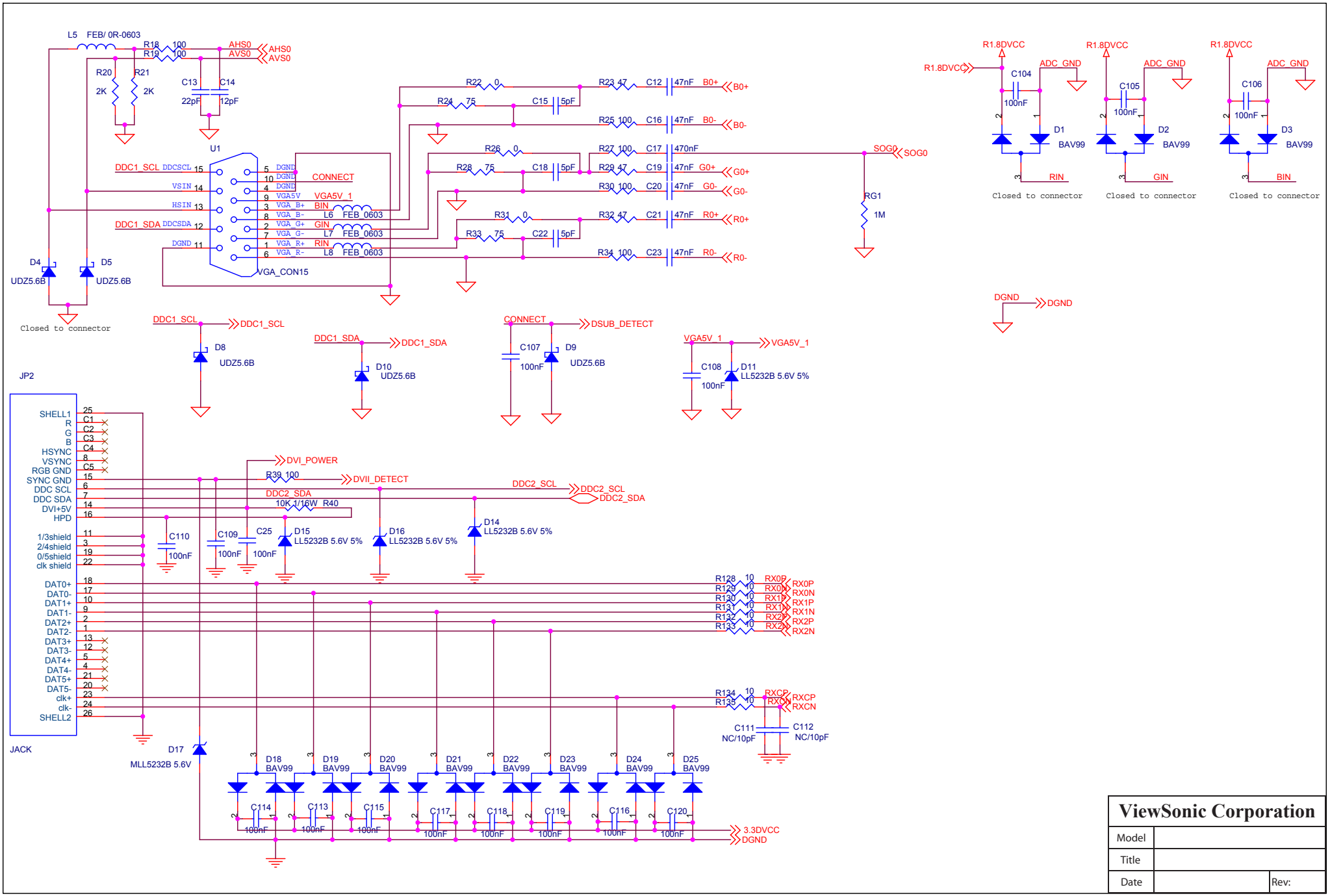
ViewSonic Corporation		
Model		
Title	OSD	
Date		Rev:



ViewSonic Corporation		
Model		
Title		
Date		Rev:



ViewSonic Corporation		
Model		
Title		
Date		Rev:



ViewSonic Corporation		
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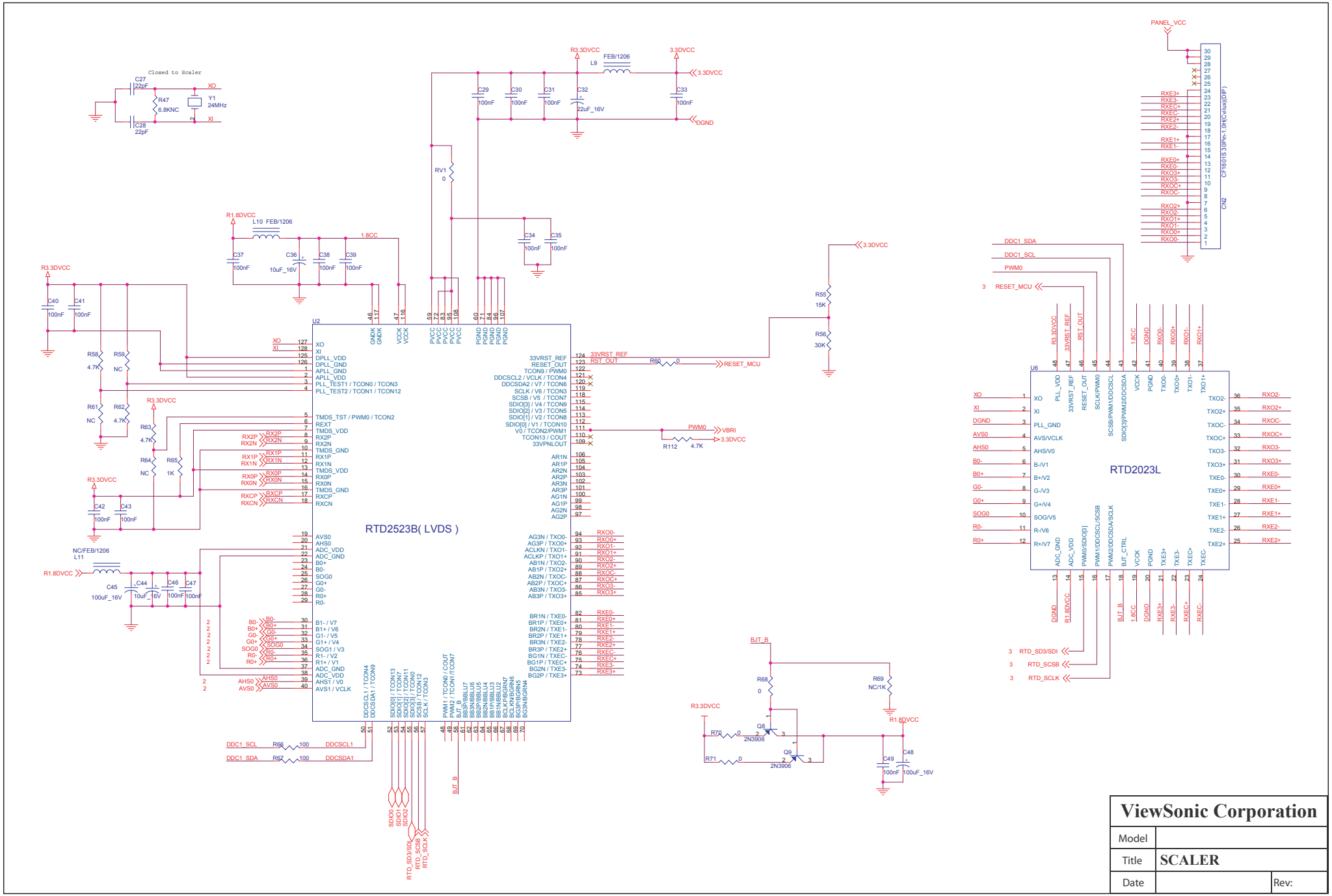
RTD2523B(LVDS)
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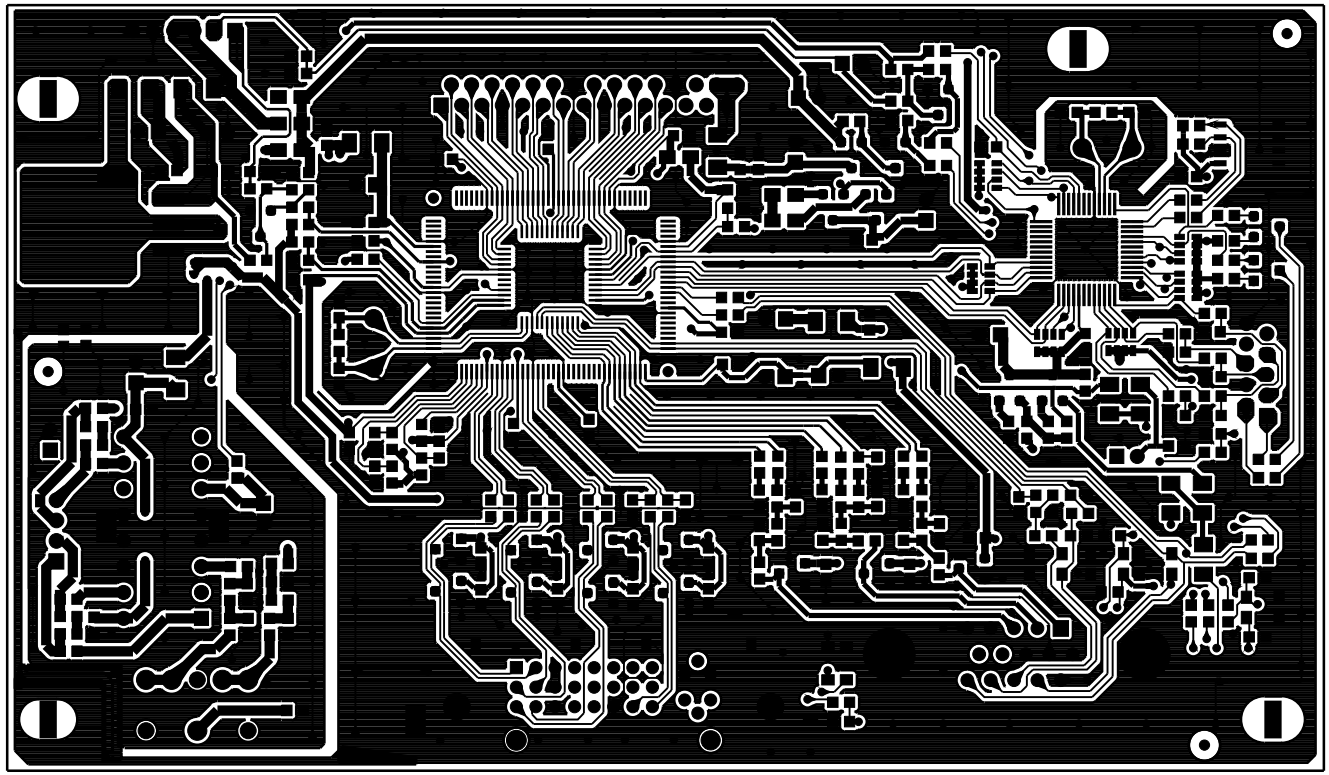
Date
Rev:

TOP SIDE



ViewSonic Corporation		
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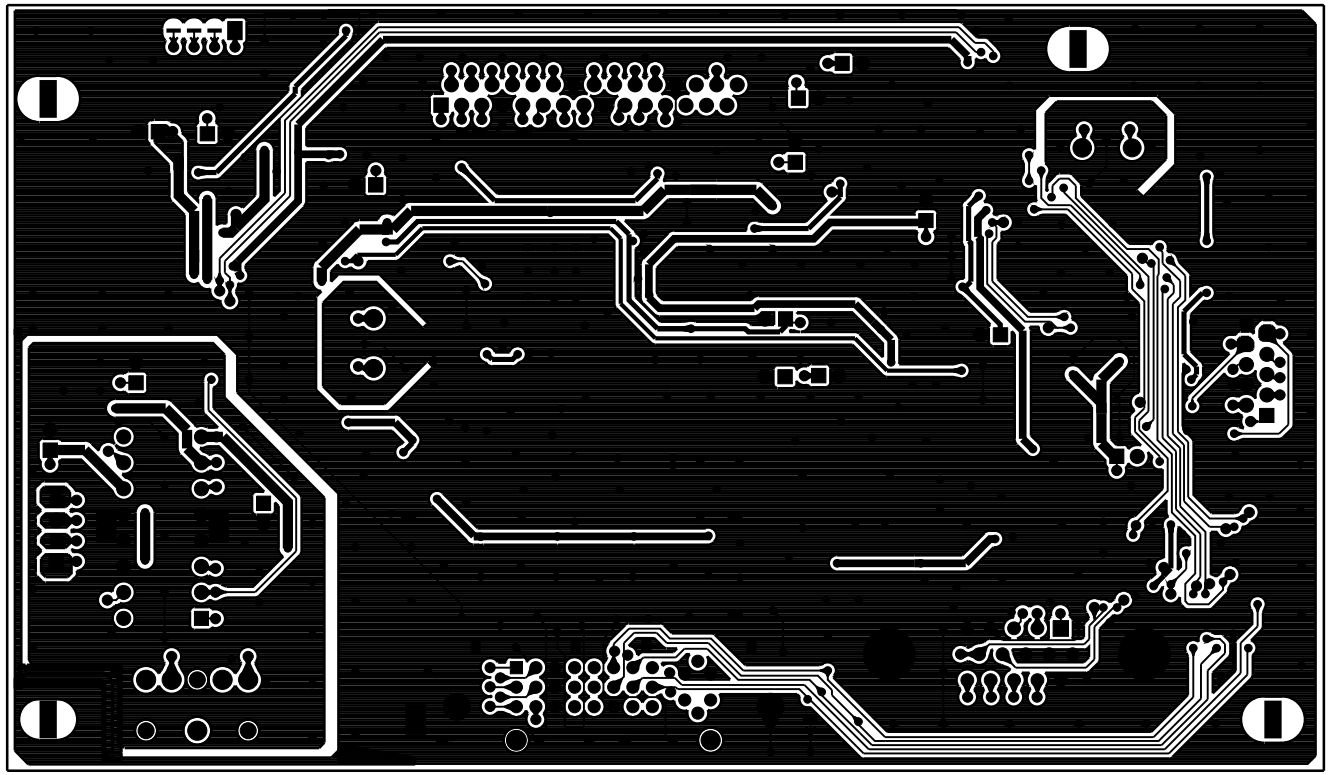
Title	TOP	
Date		Rev:

BOTTOM SIDE



ViewSonic Corporation		
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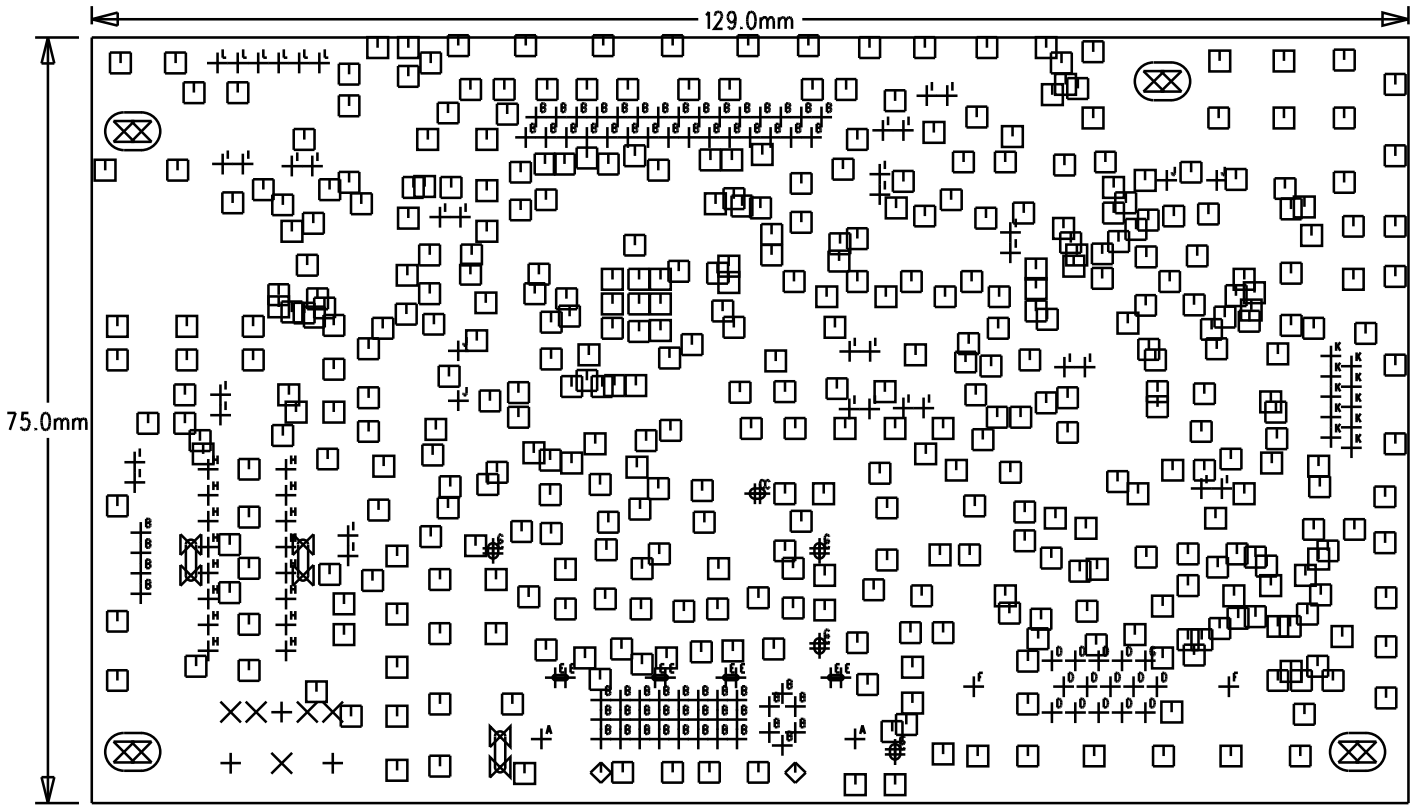
Title	**BOTTOM**	
Date		Rev:

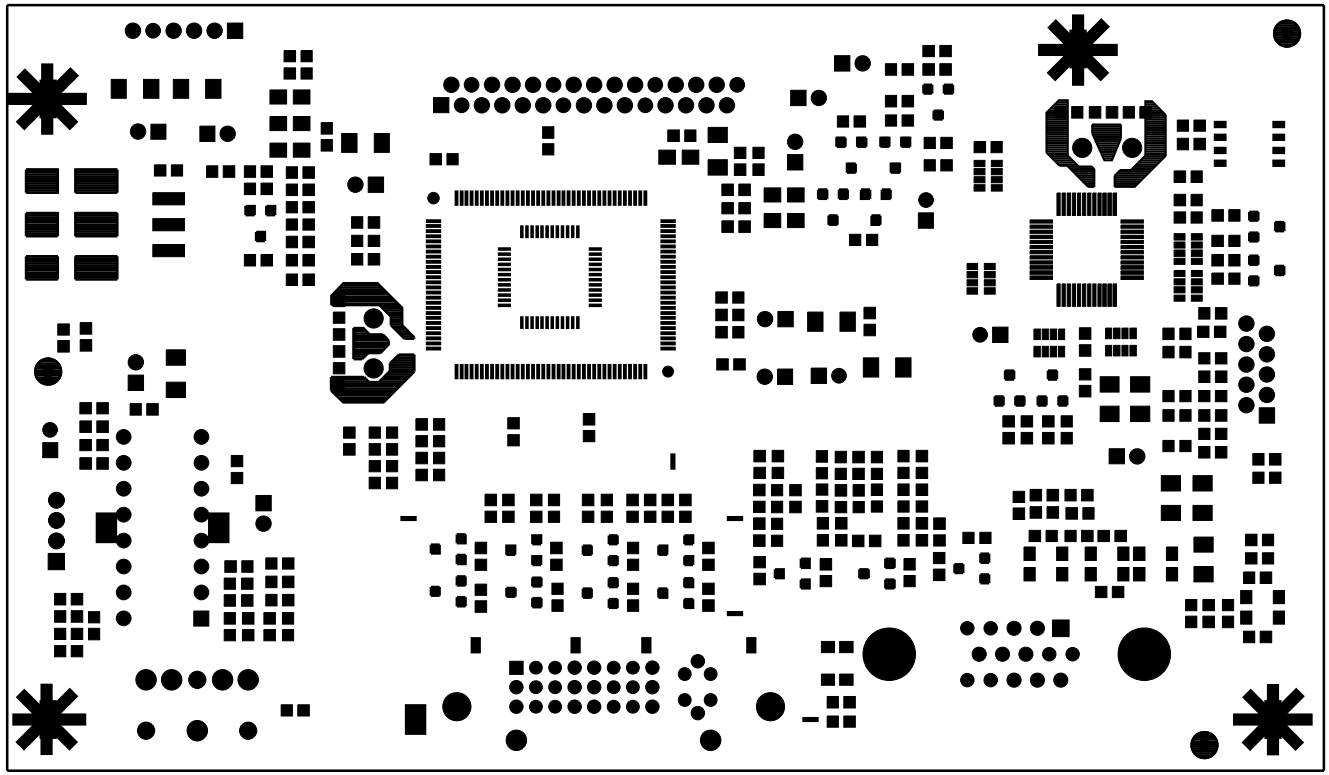
DRILL DRAWING



SIZE	QTY	SYM	PLTD	TOL
16	450	□	YES	+/-0.06mm
19.69 x 59.06	4	⊣ᴱ	YES	+/-0.06mm
27.56	10	⊣ᴷ	YES	+/-0.06mm
28	30	⊣	YES	+/-0.06mm
31.5	64	⊣ᴮ	YES	+/-0.06mm
31.5	6	⊣ᴸ	YES	+/-0.06mm
35.43	16	⊣ᴹ	YES	+/-0.06mm
35.43	14	⊣ᴼ	YES	+/-0.06mm
39	1	⊣ᴳ	YES	+/-0.06mm
39.37 x 157.48	3	⋈	YES	+/-0.06mm
39.37 x 59.06	5	⊣ᴳ	YES	+/-0.06mm
40	4	⊣ᴸ	YES	+/-0.06mm
50	5	×	YES	+/-0.06mm
62.99	3	+	NO	+/-0.06mm
76	2	⊣ᴬ	YES	+/-0.06mm
76	2	◇	NO	+/-0.06mm
126	2	⊣ᶠ	YES	+/-0.06mm
145.67 x 212.6	4	⧖	YES	+/-0.06mm

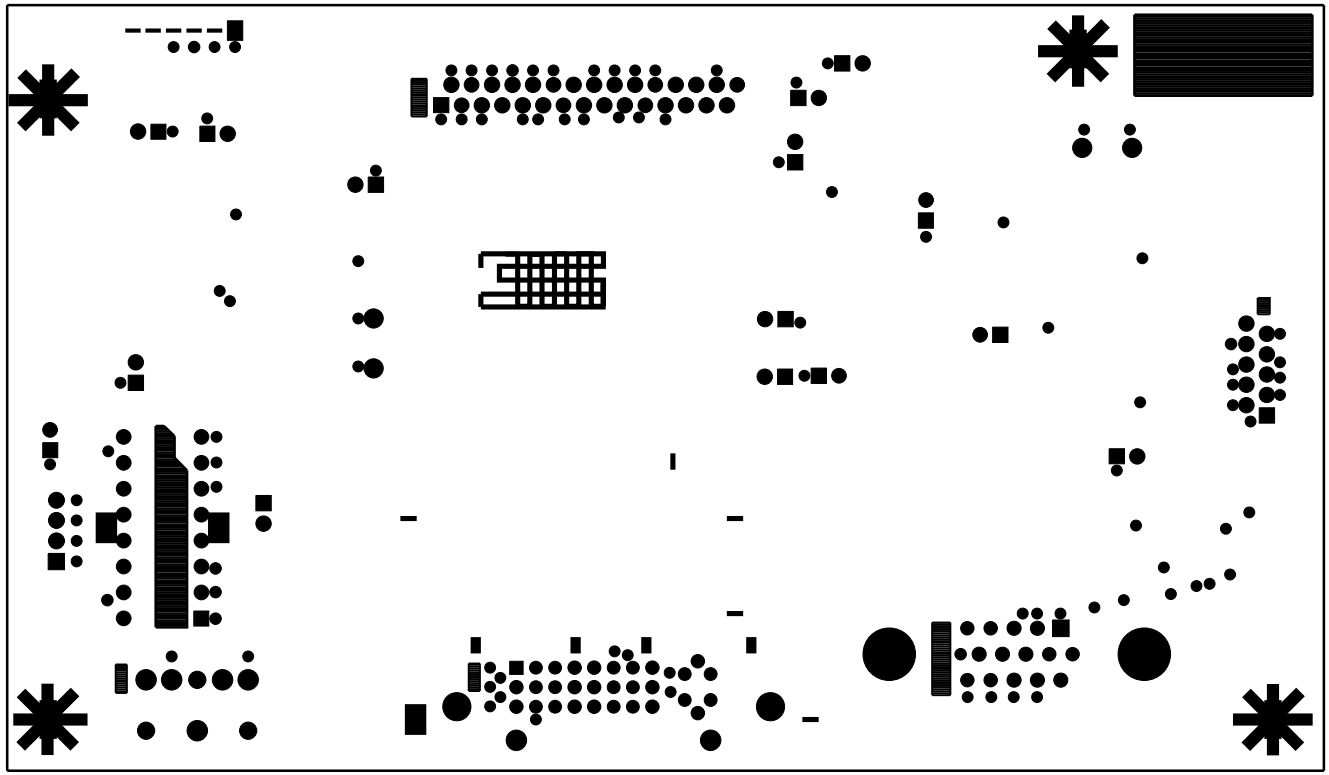
ViewSonic Corporation		
Model		
Title	DRILL DRAWING	
Date		Rev:

MASK-TOP



ViewSonic Corporation		
Model		
Title	MASK-TOP	
Date		Rev:

MASK-BOTTOM



ViewSonic Corporation		
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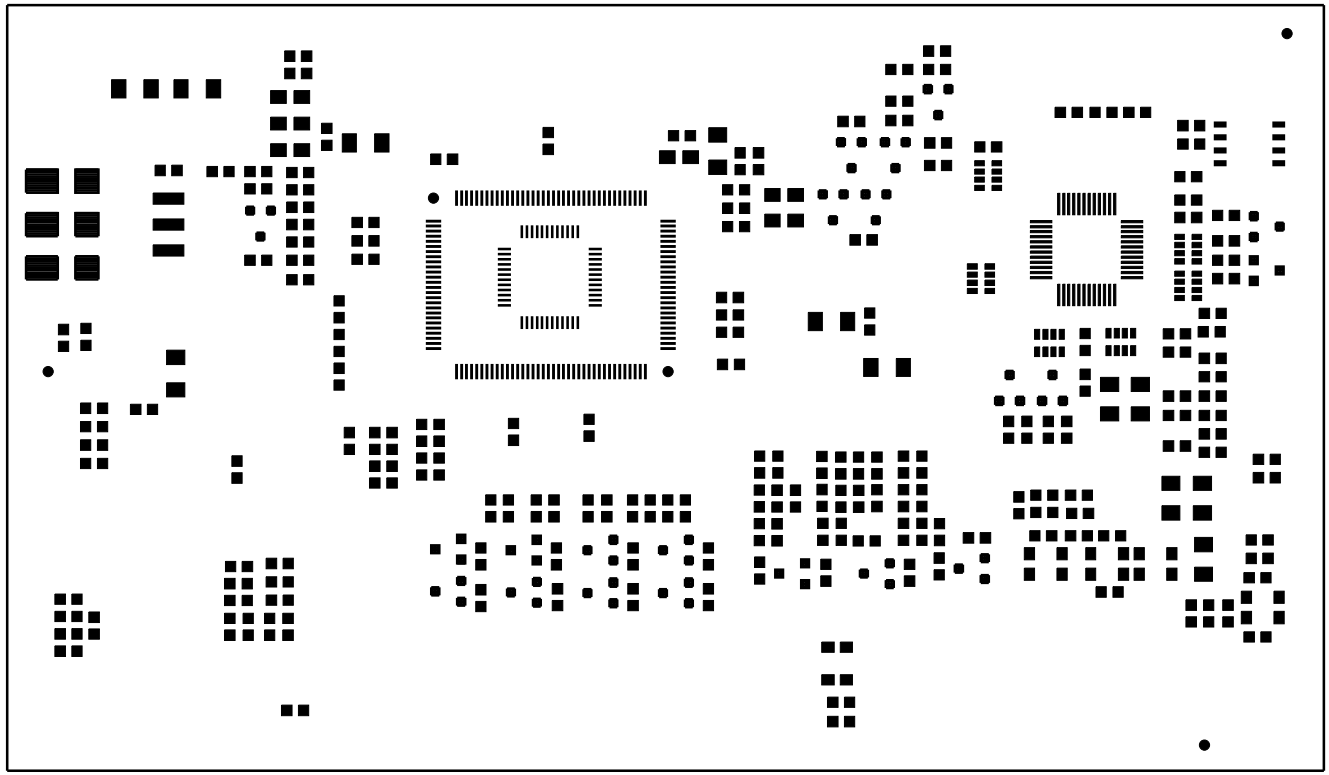
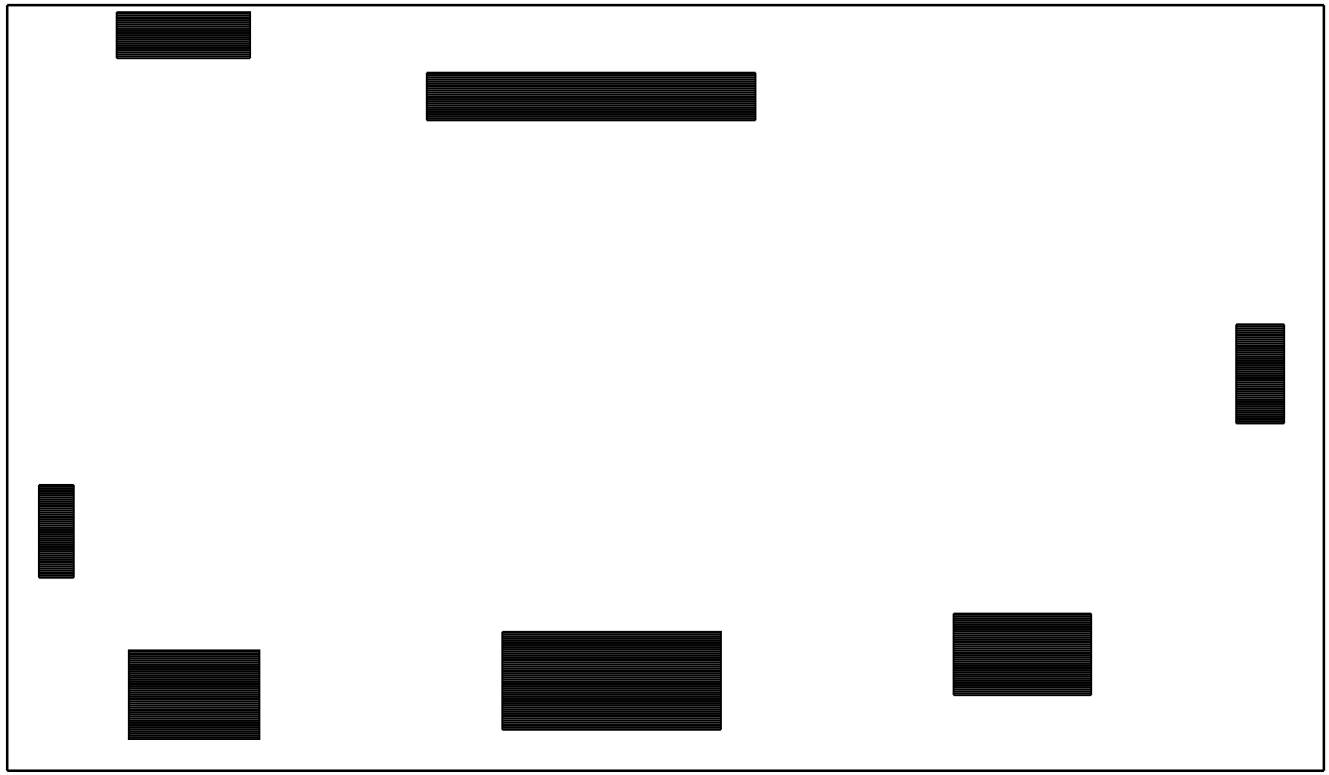
Title	MASK-BOTTOM	
Date		Rev:

SMD-TOP



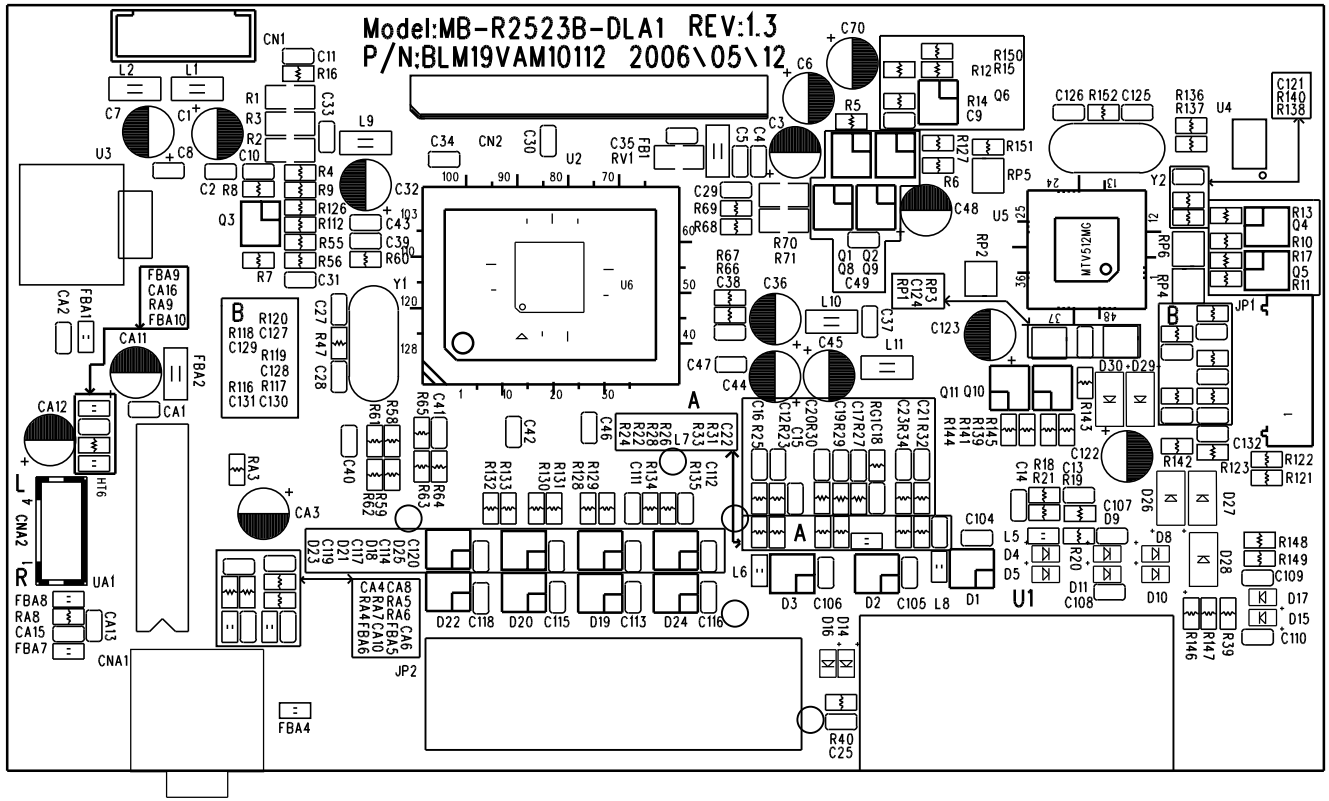
ViewSonic Corporation		
Model		
Title	SMD-TOP	
Date		Rev:

SILKSCREEN-BOTTOM



ViewSonic Corporation		
Model		
Title	SILKSCREEN-BOTTOM	
Date		Rev:

SILKSCREEN-TOP



ViewSonic Corporation		
Model		
Title	SILKSCREEN-TOP	
Date		Rev:

* Reader's Response*

Dear Readers:

Thank you in advance for your feedback on our Service Manual, which allows continuous improvement of our products. We would appreciate your completion of the Assessment Matrix below, for return to ViewSonic Corporation.

Assessment

A. What do you think about the content of this Service Manual?

Unit	*Excellent*	*Good*	*Fair*	*Bad*
1. Precautions and Safety Notices				
2. Specification				
3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjustment Procedure				
6. Troubleshooting Flow Chart				
7. Recommended Spare Parts List				
8. Exploded Diagram and Exploded Parts List				
9. Block Diagrams				
10. Schematic Diagrams				
11.PCB Layout Diagrams				

B. Are you satisfied with this Service Manual?

Item	*Excellent*	*Good*	*Fair*	*Bad*
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

C. Do you have any other opinions or suggestions regarding this service manual?

Reader's basic dada:

Name:		**Title:**	
Company:			
Add:			
Tel:		**Fax:**	
E-mail:			

After completing this form, please return it to ViewSonic Quality Assurance in the USA at facsimile 1-909-839-7943. You may also e-mail any suggestions to the Director, Quality Systems & Processes (marc.maupin@viewsonic.com)